ORDER NO. AD9104077C1
A2

Service Manual

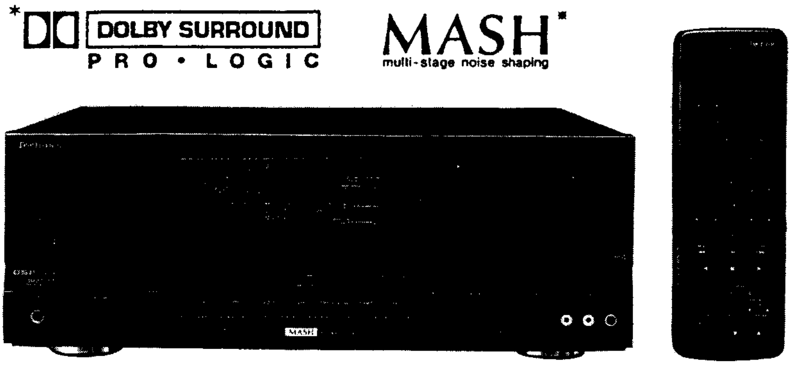
D.S.P. AV Control Stereo Receiver

Receiver

SA-GX910

*DOLBY SURROUND PRO • LOGIC

MASH*
multi-stage noise shaping



Color

(K)...Black Type

Area

Country Code	Area	Color
(PP)	U.S.A./Canada.	(K)

※
- Technics (or Panasonic) developed the world's first MASH type DAC and ADC. MASH technology was invented by NTT (LSI Labs).
- MASH is a trademark of NTT.

SPECIFICATIONS (IHF'78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output 20 Hz~20 kHz both channels driven 0.008% total harmonic distortion
125 W per channel (8 Ω)

1 kHz continuous power output both channels driven 0.008% total harmonic distortion	130 W per channel (8 Ω)
Total harmonic distortion	
rated power at 20 Hz~20 kHz	0.008% (8 Ω)
half power at 1 kHz	0.002% (8 Ω)
Dynamic headroom	1.2 dB (8 Ω)
SMPTE intermodulation distortion	0.01% (8 Ω)
Frequency response	
PHONO	RIAA standard curve ±0.8 dB
CD, VCR 1, VCR 2, VCR 3, VDP, DAT, TAPE	7 Hz~70 kHz, ±3 dB
Input sensitivity	
PHONO	0.4 mV (3 mV, IHF '66)
CD, VCR 1, VCR 2, VCR 3, VDP, DAT, TAPE	27 mV (200 mV, IHF '66)
S/N (IHF, A)	
PHONO	70 dB (80 dB, IHF '66)
CD, VCR 1, VCR 2, VCR 3, VDP, DAT, TAPE	70 dB (90 dB, IHF '66)
Phono maximum input voltage	160 mV (IHF '66)
Input impedance	
PHONO	47 kΩ
CD, VCR 1, VCR 2, VCR 3, VDP, DAT, TAPE	22 kΩ
Tone controls	
BASS	50 Hz, +10 dB~−10 dB
TREBLE	20 kHz, +10 dB~−10 dB
4 band parametric equalizer	+10 dB~−10 dB
Loudness control (volume at −30 dB)	50 Hz, +9 dB
Low frequency damping factor	30 (8 Ω)
Load impedance	
A or B	4~8 Ω
A and B	8 Ω

■ SURROUND AMPLIFIER SECTION

Power output (Rear)	1 kHz, 2×30 W (8 Ω) (T.H.D. 0.8 %)
Power output (Center)	100 Hz~15 kHz, 60 W (8 Ω) (T.H.D. 0.8 %)

■ DIGITAL SECTION (fs=44.1 kHz, EIAJ-D)

Harmonic distortion (1 kHz)	0.005%
Frequency response	+0.3 dB, −0.3 dB (2 Hz~20 kHz)

■ FM TUNER SECTION

Frequency range	87.9~107.9 MHz
Sensitivity	11.2 dBf (2 µV, IHF '58)
50 dB quieting sensitivity	
MONO	20.2 dBf (5.6 µV, IHF '58)
STEREO	40.2 dBf (56 µV, IHF '58)
Total harmonic distortion	
MONO	0.2%
STEREO	0.3%
S/N	
MONO	75 dB
STEREO	70 dB
Frequency response	20 Hz~15 kHz, +1 dB, −2 dB

Technics

Alternate channel selectivity	65 dB
Capture ratio	1.0 dB
Image rejection at 98 MHz	50 dB
IF rejection at 98 MHz	90 dB
Spurious response rejection at 98 MHz	80 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
10 kHz	30 dB
Carrier leak	
19 kHz	−35 dB
38 kHz	−50 dB
Antenna terminals	75 Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	530~1720 kHz
Sensitivity	20 µV, 330 µV/m
Selectivity	55 dB
Image rejection at 1000 kHz	40 dB
IF rejection at 1000 kHz	60 dB

■ VIDEO SECTION

Output voltage at 1 V input (unbalanced)	1 ± 0,1 Vp-p
Maximum input voltage	1.5 Vp-p
Input/output impedance	75 Ω (unbalanced)

■ S VIDEO SECTION

Rated input, Rated output/Impedance	
Y	1 Vp-p, 1 Vp-p/75 Ω
C	0.286 Vp-p, 0.286 Vp-p/75 Ω

■ GENERAL

Power consumption	500 W, 650 VA
Power supply	AC 120V, 60Hz
Dimensions (W × H × D)	430 × 158 × 429 mm (16-15/16" × 6-7/32" × 16-7/8")
Weight	15.2 kg (33.4 lb.)

Notes:

1. Total harmonic distortion is measured by the digital spectrum analyzer.
2. Specifications are subject to change without notice. Weight and dimensions are approximate.

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"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

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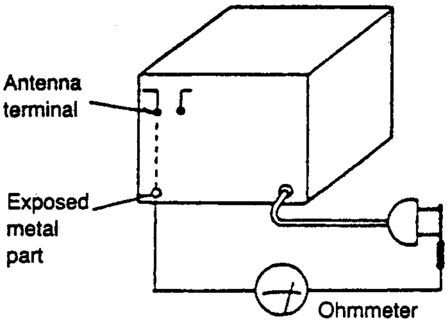
■ SAFETY PRECAUTION (This "safety precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barries, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

•INSULATION RESISTANCE TEST

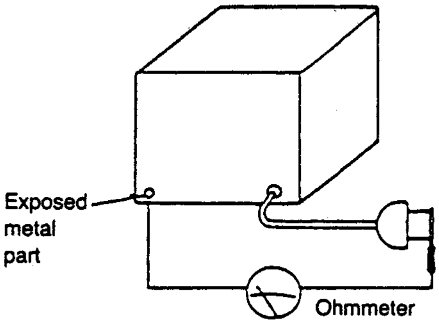
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3 MΩ and 5.2 MΩ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.


Antenna terminal
Exposed metal part
Ohmmeter

(Fig. A)

Resistance=3 MΩ–5.2 MΩ

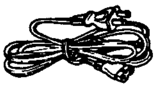

Exposed metal part
Ohmmeter

(Fig. B)

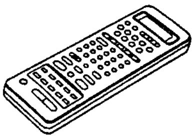
Resistance=Approx. ∞

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

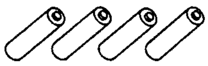
■ ACCESSORIES



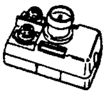
AC power supply cord
(SJA172) .... 1 pc.



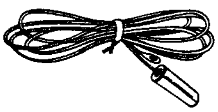
Remote control transmitter
(EUR66636) .... 1 pc.



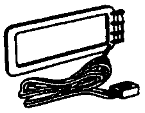
Batteries AAA, 1.5 V
(R03/UM-4) .... 4 pcs.



Antenna plug .... 1 pc.
(SJS8202)



FM indoor antenna
(SSA270M) .... 1 pc.



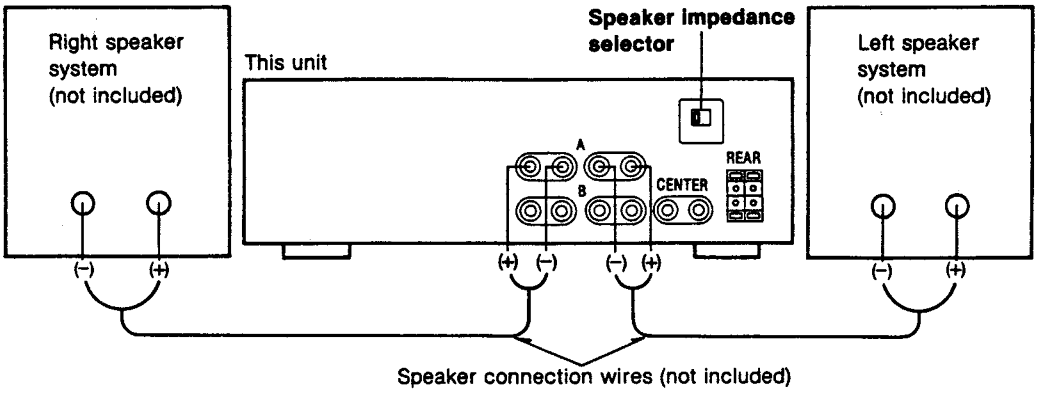
AM loop antenna
(SPB1163T) .... 1 pc.

AM antenna holder .... 1 pc.
(SMA233-1M)

Screws .... 2 pcs.
(XTN3+10AFZ)

■ CONNECTIONS

•Speakers connection


Right speaker system (not included)
This unit
Speaker impedance selector
Left speaker system (not included)
A
B
CENTER
REAR
(–) (+)
(+) (–)
(–) (+)
(–) (+)

Speaker connection wires (not included)

"B" terminals

For connection to a second pair of speakers.

"CENTER" terminals

For connection to center speakers.

"REAR" terminals

For connection to rear speakers.

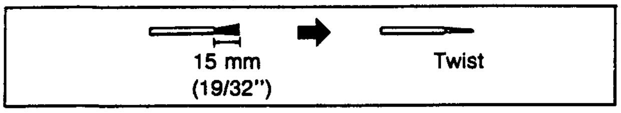
Load impedance

If either the "A" or the "B" speaker systems are used:
4~6 Ω: For speaker impedance of 4~6 Ω.
8 Ω: For speaker impedance of 8 Ω.
If both "A" and "B" speaker systems are used:
Set the speaker impedance selector to "8 Ω".
If the impedance of both systems is 4 Ω, or one is 4 Ω and the other is 8 Ω, both speakers can not be used at the same time.
If center and rear speakers are used:
The load impedance must be 8 Ω.

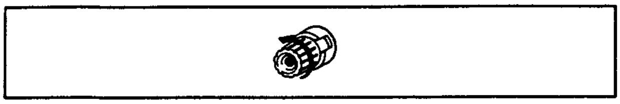
•Connection of speaker cables

For "A", "B" and "CENTER" terminals

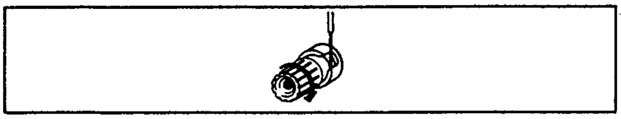
① Twist the core of the speaker wires.


15 mm
(19/32")
Twist

② Turn counterclockwise 5 or 6 times to reveal hole in terminal shaft.

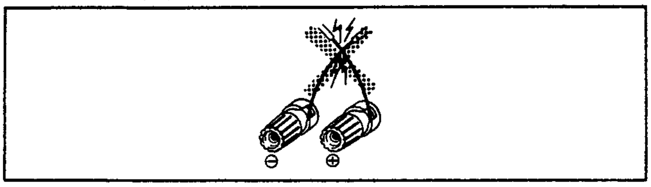


③ Insert the wire and tighten screw completely.
Pull the wire to assure a proper connection.

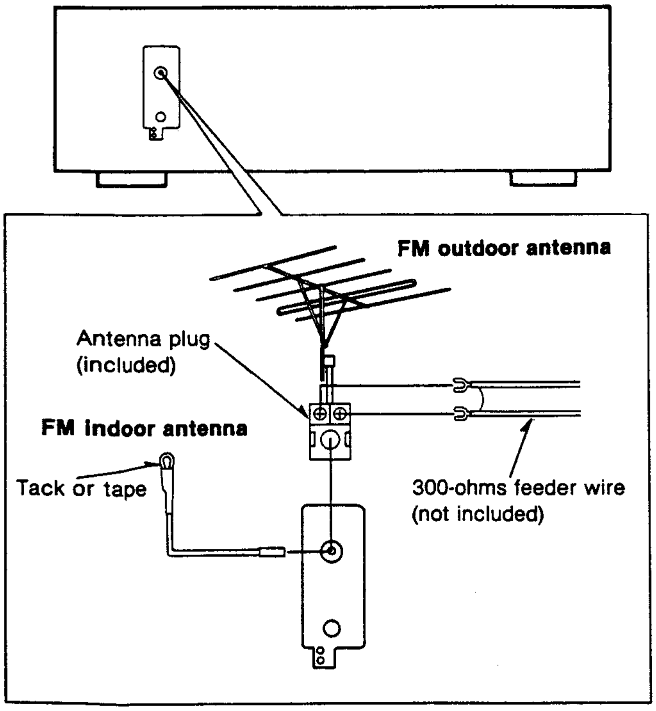


Be sure to only connect positive (+) wires to positive (+) terminals, and negative (−) wires to negative (−) terminals.

Notes:
To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.



•FM antenna connections


FM outdoor antenna
Antenna plug
(included)
FM indoor antenna
Tack or tape
300-ohms feeder wire
(not included)

■ FM indoor antenna (included)

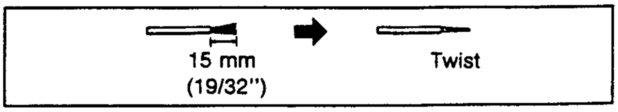
Attach to a wall (using a tack or tape) facing in the direction of best reception.

For best reception sound quality:
An FM outdoor antenna is recommended.

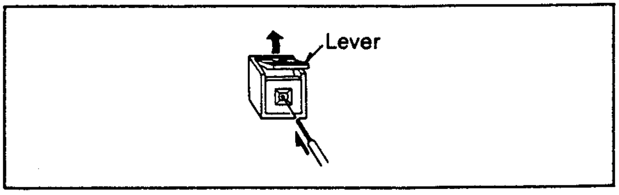
- The tack should not contact the internal antenna wire.
- Disconnect the antenna if an FM outdoor antenna is installed.

For "REAR" terminals

① Twist the core of the speaker wires.


15 mm
(19/32")
Twist

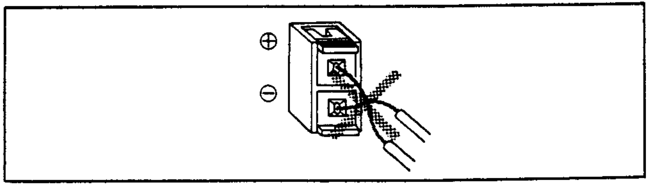
② Open the lever, and insert the core until it can no longer be seen.



③ Close the lever, and pull the wire to assure a proper connection.

Be sure to only connect positive (+) wires to positive (+) terminals, and negative (−) wires to negative (−) terminals.

Notes:
To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.

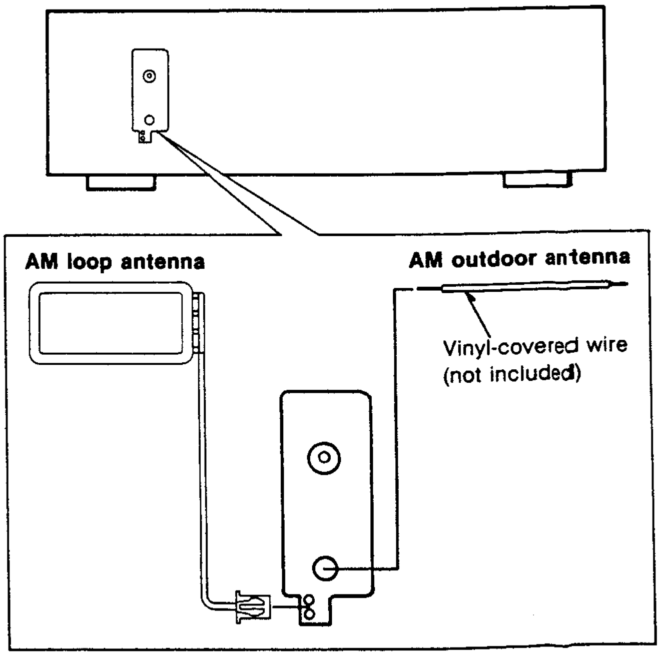


■ FM outdoor antenna (not included)

If the FM indoor antenna does not provide satisfactory reception, an outdoor antenna should be used.
The outdoor antenna may be required in a mountainous region, or if this unit is located inside a reinforced-concrete building, etc.

Connection wire from the antenna
Two types of wire are most commonly used for connection from the antenna: 300-ohms parallel feeder wire or 75-ohms coaxial cable. For best resistance to external interference noise, the use of 75-ohms coaxial cable is suggested.

•AM antenna connections


AM loop antenna
AM outdoor antenna
Vinyl-covered wire
(not included)

AM loop antenna (included)

Connect the AM loop antenna to the AM antenna terminals, and mount it vertically to a column, rack.
Move the antenna toward the right or left to find the point of best reception.

- If this antenna is not properly installed, AM broadcasts will not be received.
- Be sure to connect the AM loop antenna even when an outdoor antenna is used.

Pay attention to the following points when mounting the antenna.

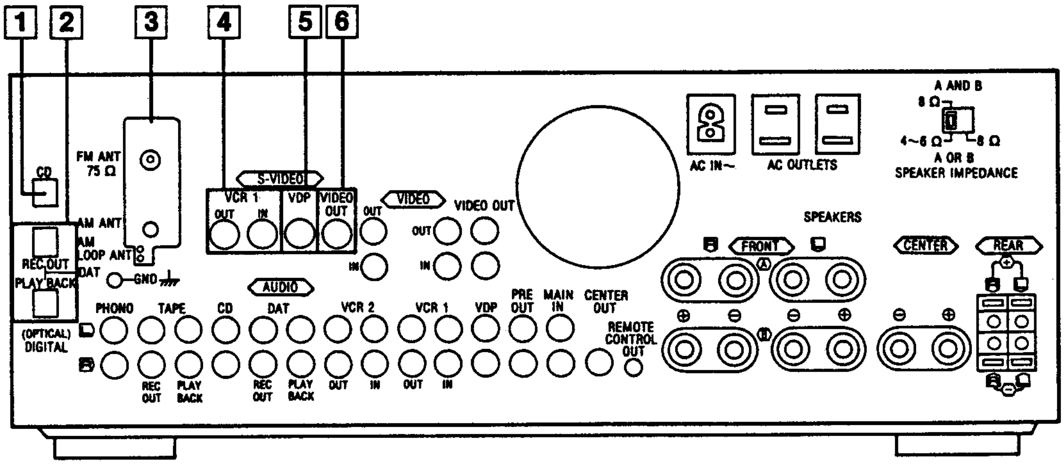
- Do not mount it horizontally (Doing so will impair reception).
- Do not mount it close to power cords, speaker wires or metal surfaces (Doing so will result in noise).
- Do not mount it close to a tape deck. When the tape deck is being used, chirping or beeping sounds may result.

AM outdoor antenna (not included)

An outdoor antenna may be required in a mountainous region, or if this unit is located inside a reinforced-concrete building, etc.
Use 5−12 m (16−40 ft.) of vinyl-covered wire horizontally at the window, or convenient location.

When the unit is not in use, disconnect the outdoor antenna to prevent possible damage that may be caused by lightning. Never use an outdoor antenna during an electrical storm.

REAR PANEL TERMINALS AND FUNCTIONS

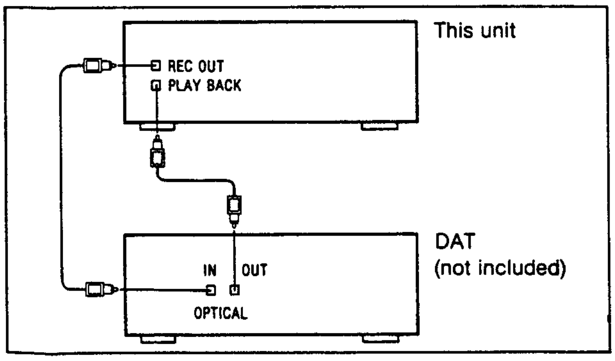

1
2
3
4
5
6
CD
FM ANT 75 Ω
AM ANT
AM LOOP ANT
DAT
GND
REC OUT
PLAY BACK
(OPTICAL) DIGITAL
S-VIDEO
VCR 1
OUT
IN
VDP
VIDEO OUT
OUT
VIDEO
VIDEO OUT
OUT
IN
IN
AUDIO
PHONO
TAPE
CD
DAT
VCR 2
VCR 1
VDP
PRE OUT
MAIN IN
CENTER OUT
REMOTE CONTROL OUT
L
R
REC OUT
PLAY BACK
REC OUT
PLAY BACK
OUT
IN
OUT
IN
AC IN~
AC OUTLETS
A AND B
8 Ω
4~6 Ω
8 Ω
A OR B
SPEAKER IMPEDANCE
SPEAKERS
FRONT
CENTER
REAR
A
B

1 "CD" terminals (DIGITAL)

Connect an optical-fiber cable (not included) to the optical output terminal of the compact disc player.
If this connection is made, the stereo connection cables do not need to be connected.

2 "DAT" terminals (DIGITAL)

Connect a digital audio tape deck (DAT) by using optical-fiber cables (not included).
If this connection is made, the stereo connection cables do not need to be connected.

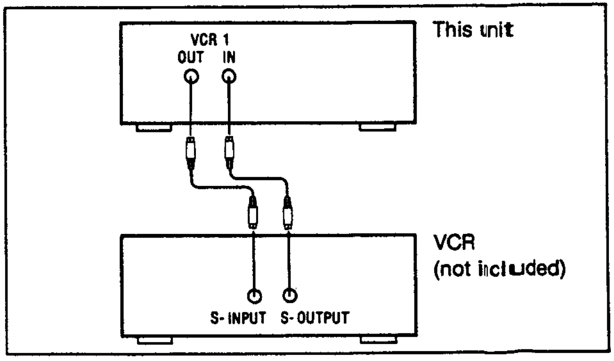

This unit
REC OUT
PLAY BACK
DAT
(not included)
IN
OUT
OPTICAL

3 Antenna connection terminals

See pages 8−9 for detailed information.

4 S-video "VCR 1" terminals

Connect a VCR by using S video cables (not included).

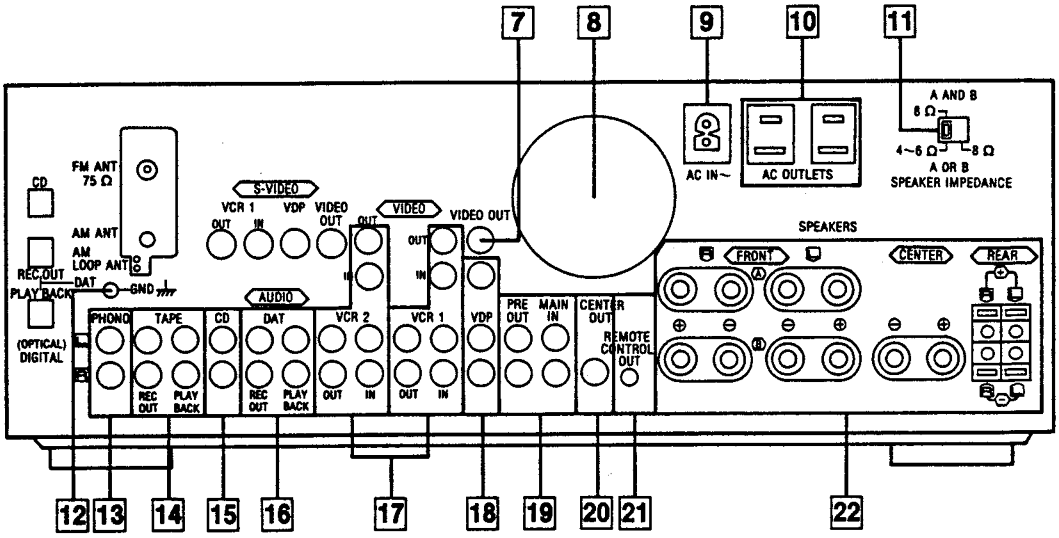

This unit
VCR 1
OUT
IN
VCR
(not included)
S-INPUT
S-OUTPUT

5 S-video "VDP" terminal

Connect an S video cable (not included) to the S output terminal of the video disc player.

6 S-video "VIDEO OUT" terminal

Connect an S video cable (not included) to the "S-VIDEO" input terminal of TV or projection TV.


7
8
9
10
11
CD
FM ANT 75 Ω
AM ANT
AM LOOP ANT
REC OUT
PLAY BACK
DAT
GND
(OPTICAL) DIGITAL
S-VIDEO
VCR 1
OUT
IN
VDP
VIDEO OUT
VIDEO
VIDEO OUT
AUDIO
PHONO
TAPE
CD
DAT
VCR 2
VCR 1
VDP
PRE OUT
MAIN IN
CENTER OUT
REMOTE CONTROL OUT
REC OUT
PLAY BACK
AC IN~
AC OUTLETS
A AND B 8 Ω
4~6 Ω
8 Ω
A OR B
SPEAKER IMPEDANCE
SPEAKERS
FRONT
CENTER
REAR
A
B
12
13
14
15
16
17
18
19
20
21
22

7 "VIDEO OUT" terminal

Connect a video connection cable (not included) to the video input terminal of TV or projection TV.

8 Cooling fan

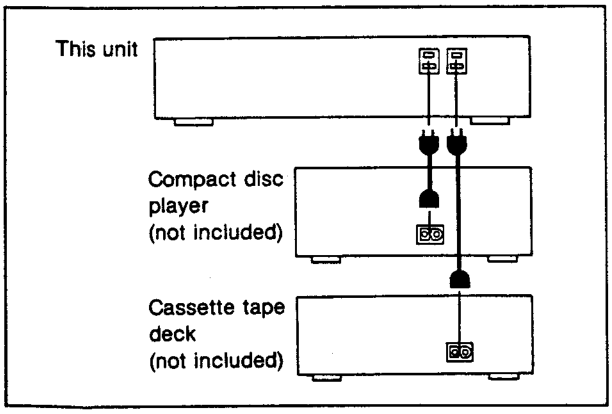
The cooling fan operates at high output power levels only.

9 AC IN socket (AC IN)

Connect this socket to an AC outlet on the wall using the power supply cord.

10 Outlets "SWITCHED"

Power to these outlets is controlled by the power switch of this unit. Audio equipment rated up to 80 W (total for all outlets) can be connected here. For proper remote-control operation, connect the power cords of the tape deck and compact disc player to these outlets as indicated below:


This unit
Compact disc player (not included)
Cassette tape deck (not included)

11 Speaker impedance selector

Before use, set to the correct impedance corresponding to the impedance of the speaker systems being used.

12 "GND" terminal

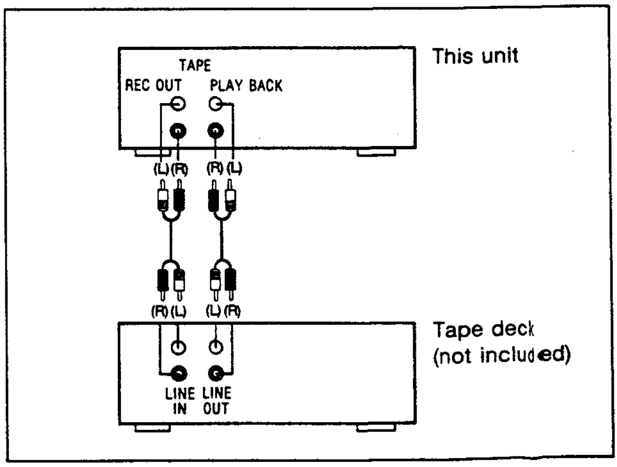
Connect the turntable's ground wire to this terminal (if applicable).

13 "PHONO" terminals

Connect a turntable only. Do not connect any other sound source to these terminals.

14 "TAPE" terminals

Connect a tape deck by using stereo connection cables (not included).

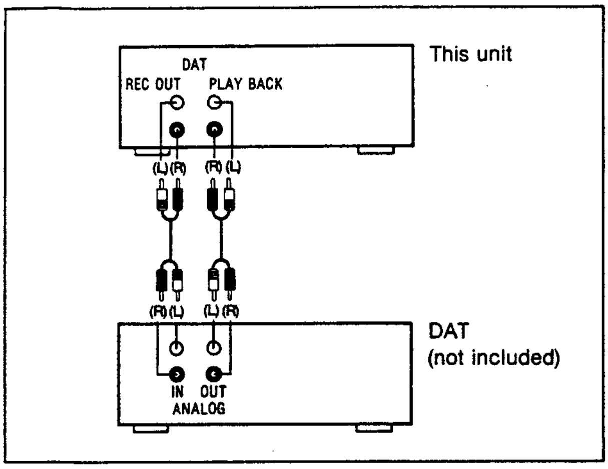

This unit
TAPE
REC OUT
PLAY BACK
(L) (R)
(R) (L)
(R) (L)
(L) (R)
Tape deck (not included)
LINE IN
LINE OUT

15 "CD" terminals

Connect a stereo connection cable (not included) to the "LINE OUT" terminal of the compact disc player.

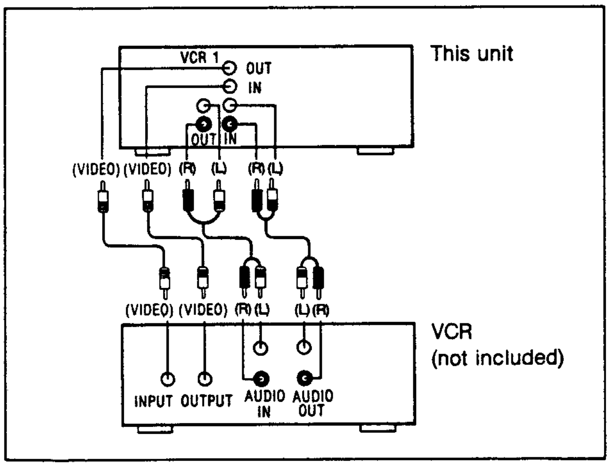
16 "DAT" terminals

Connect a digital audio tape deck (DAT) by using stereo connection cables (not included).


This unit
DAT
REC OUT
PLAY BACK
(L)(R)
(R)(L)
(R)(L)
(L)(R)
DAT
(not included)
IN
OUT
ANALOG

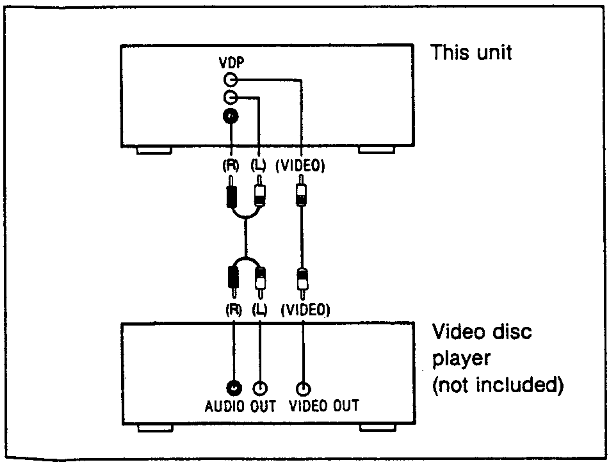
17 "VCR 1/VCR 2" terminals

Connect VCRs by using stereo connection cables (not included) and video connection cables (not included).
The illustration below shows the VCR 1 connection.


This unit
VCR 1
OUT
IN
OUT
IN
(VIDEO)
(VIDEO)
(R)
(L)
(R)(L)
(VIDEO)
(VIDEO)
(R)(L)
(L)(R)
VCR
(not included)
INPUT
OUTPUT
AUDIO IN
AUDIO OUT

18 "VDP" terminals

Connect a video disc player by using stereo connection cables (not included) and video connection cables (not included).

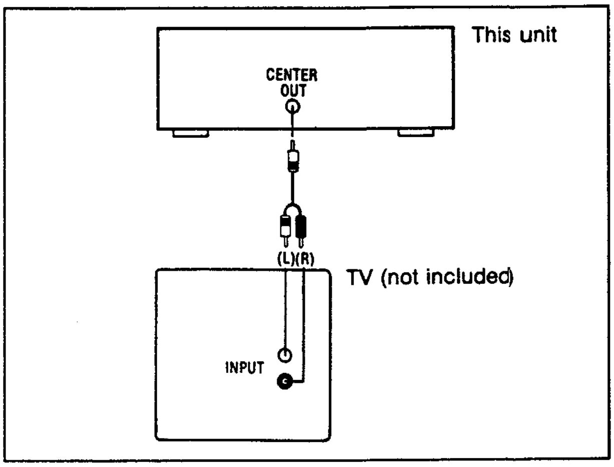

This unit
VDP
(R)
(L)
(VIDEO)
(R)
(L)
(VIDEO)
Video disc player
(not included)
AUDIO OUT
VIDEO OUT

19 "PRE OUT/MAIN IN" terminals

Do not remove the shorting pins from these terminals unless you plan to use an independent preamplifier or main amplifier. (No sound will be heard if they are removed). To use it in this way, refer to the operating instructions for the additional amplifier or preamplifier that you plan to use.

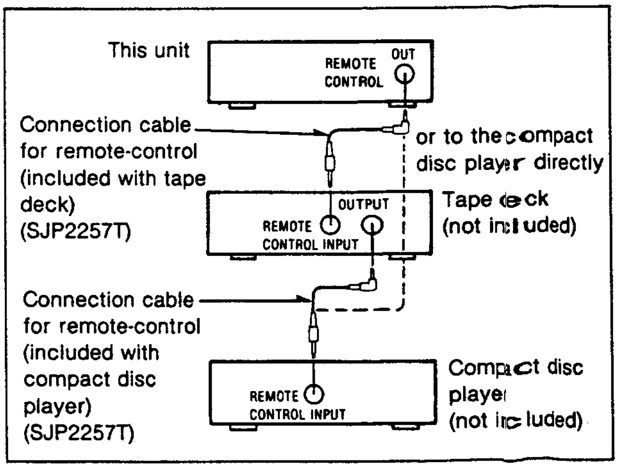
20 "CENTER OUT" terminal

This terminal is connected to use the speakers connecting to the external amplifier or to use the TV speakers as the center speaker.
Connect a Y-adaptor cable (not included) to the audio input terminal of the external amplifier or TV.
When using the speakers, after setting the center level of the main unit to MAX, adjust the volume on the external amplifier or the TV.


This unit
CENTER OUT
(L)(R)
TV (not included)
INPUT

21 Remote-control OUT terminal (REMOTE CONTROL OUT)

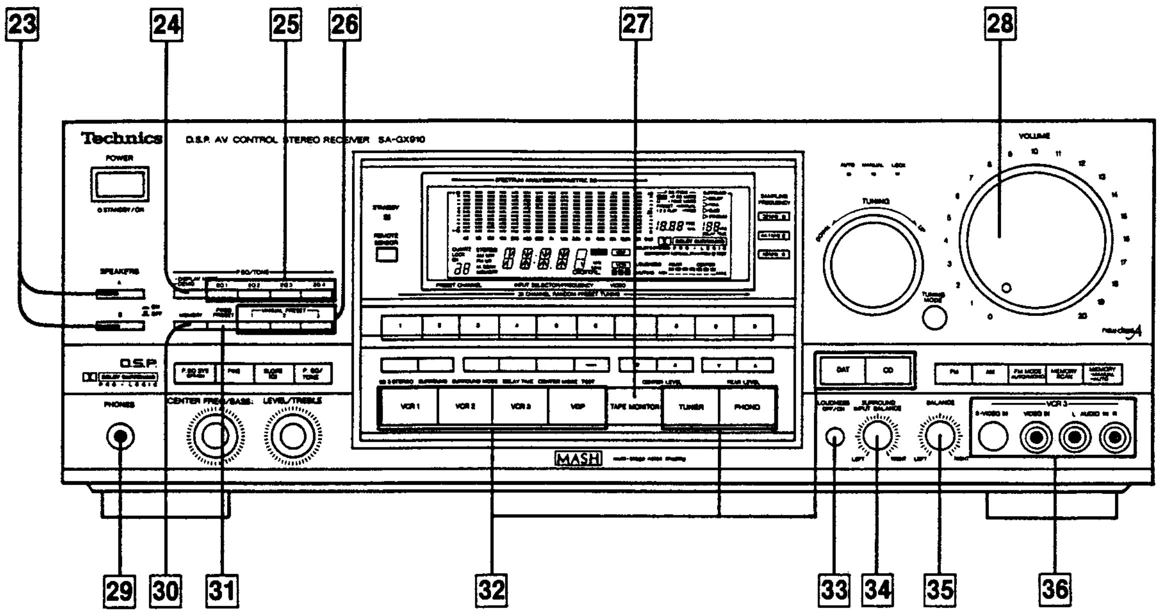
This terminal can be used only with Technics components which have the appropriate remote-control terminal.
(Consult your dealer for details.)
Proper connection with remote-control connection cables SJP2257T will allow control of some functions from this unit's remote-control transmitter.
Connect to a tape deck and/or compact disc player as shown below.


This unit
REMOTE CONTROL
OUT
Connection cable for remote-control (included with tape deck) (SJP2257T)
or to the compact disc player directly
OUTPUT
REMOTE CONTROL INPUT
Tape deck (not included)
Connection cable for remote-control (included with compact disc player) (SJP2257T)
REMOTE CONTROL INPUT
Compact disc player (not included)

22 Speaker connection terminals

See page 3~4 for detailed information.

■ FRONT PANEL CONTROLS AND FUNCTIONS



Amplifier section

23 Speaker selectors (SPEAKERS)

These selectors are used to select the speaker system(s) (A and/or B).

24 Display mode select button (·DISPLAY MODE -DEMO)

This button is used to select either the spectrum analysis level ("Bar-type display" or "Dot display") or equalization level display.
If the button is pressed for 3 seconds or more, this unit will start a demonstration mode for the parametric EQ system. (Refer to page 25 for detailed information.)

25 Parametric EQ band select buttons

These buttons are used to select the band to be adjusted.

26 Equalization preset buttons (MANUAL PRESET)

These buttons are used for storing or recalling the curves made by the parametric EQ system.

27 Tape-monitor switch (TAPE MONITOR)

Press this button to listen to a tape or an audio source connected to the "TAPE" terminals.
To listen to some other source, press this button once again (so that the indicator is switched OFF).

28 Volume control (VOLUME)

29 Headphone jack (PHONES)

30 Parametric EQ system memory button (MEMORY)

This button enables the curves to be stored in the parametric EQ system memory.

31 Fixed preset button (FIXED PRESET)

This button is used to recall a "fixed preset" curve from the main unit's memory.

32 Input selector buttons

These buttons are used to select the sound source to be heard, such as a disc, radio broadcasts, etc. The selected sound source is shown on the audio input selector/frequency display.
The "PHONO" input selector has two functions: when pressed momentarily it selects "PHONO". when pressed and held for about 3 seconds, it de-activates the muting function.

33 Loudness switch (LOUDNESS)

Set to the "ON" position (the loudness indicator will illuminate); when listening to music at low volume. Auditory perception of sound in the low frequency range falls off at low volume, but when the switch is in this position, this deficiency is compensated for, so that the full impact of the musical performance can be enjoyed.

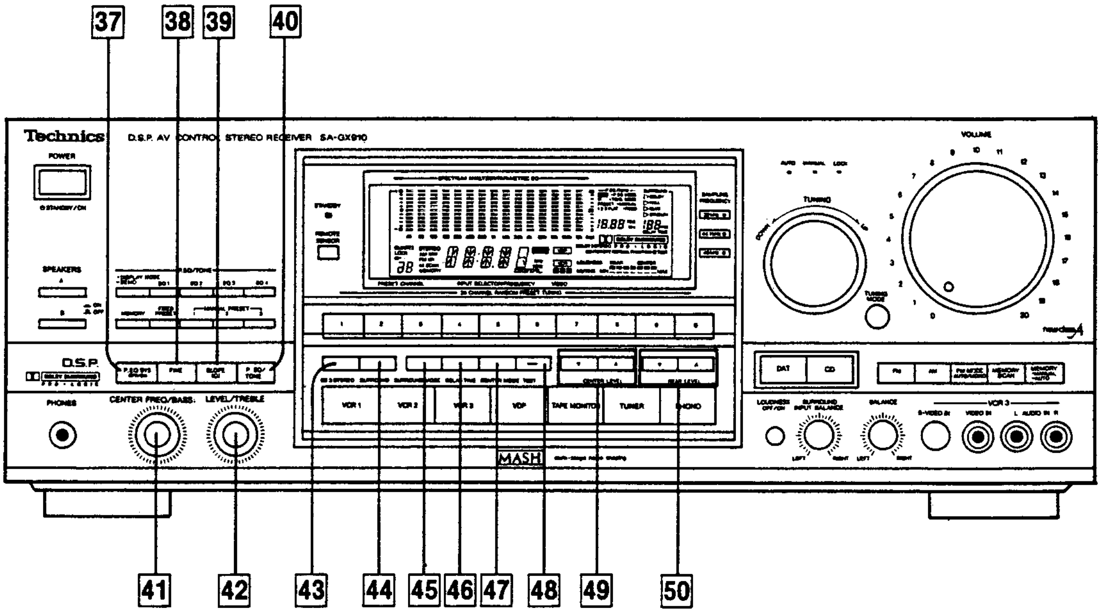
34 Dolby surround input balance control (SURROUND INPUT BALANCE)

This control is used to minimize dialogue leakage in the surround channel thereby optimizing the Dolby surround decoding operation.

35 Balance control (BALANCE)

36 "VCR 3" terminals (VCR 3)

These terminals are used for tape-to-tape recording if a third VCR is connected here.


37
38
39
40
Technics
D.S.P. AV CONTROL STEREO RECEIVER SA-GX910
POWER
SPEAKERS
D.S.P.
PHONES
CENTER FREQ/BASS
LEVEL/TREBLE
VOLUME
TUNING
VCR 1
VCR 2
VCR 3
VDP
TAPE MONITOR
TUNER
PHONO
DAT
CD
BALANCE
MASH
41
42
43
44
45
46
47
48
49
50

37 Parametric EQ system ON/OFF button (P. EQ SYS)

This button is used to turn the parametric EQ system ON or OFF.

38 Fine mode select button (FINE)

This button is used to fine-adjust the center frequency of the parametric EQ.

39 Slope changeover button [SLOPE (Q)]

This button is used to increase or decrease the slope of the parametric EQ curves.

40 Parametric EQ/tone mode select button (P.EQ/TONE)

This button is used to select parametric EQ mode or tone mode.

41 Center frequency select/bass control (CENTER FREQ/BASS)

This control is used to select the center frequency in the parametric EQ mode or to adjust the low-frequency sounds in the tone mode.

42 Frequency level/treble control (LEVEL/TREBLE)

This control is used to adjust the frequency level in the parametric EQ mode or the high-frequency sounds in the tone mode.

43 Dolby 3 stereo ON/OFF button (3 STEREO)

This button is used to activate the Dolby 3 stereo effect.

44 Surround ON/OFF button (SURROUND)

This button is used to activate the surround effect.

45 Surround mode select button (SURROUND MODE)

This button is used to select the desired surround mode.

46 Delay time adjustment button (DELAY TIME)

47 Center mode select button (CENTER MODE)

Each time you press this button, the center mode will change as follows: NORMAL→ PHANTOM→ CENTER OFF.

48 Test signal transmission button (TEST)

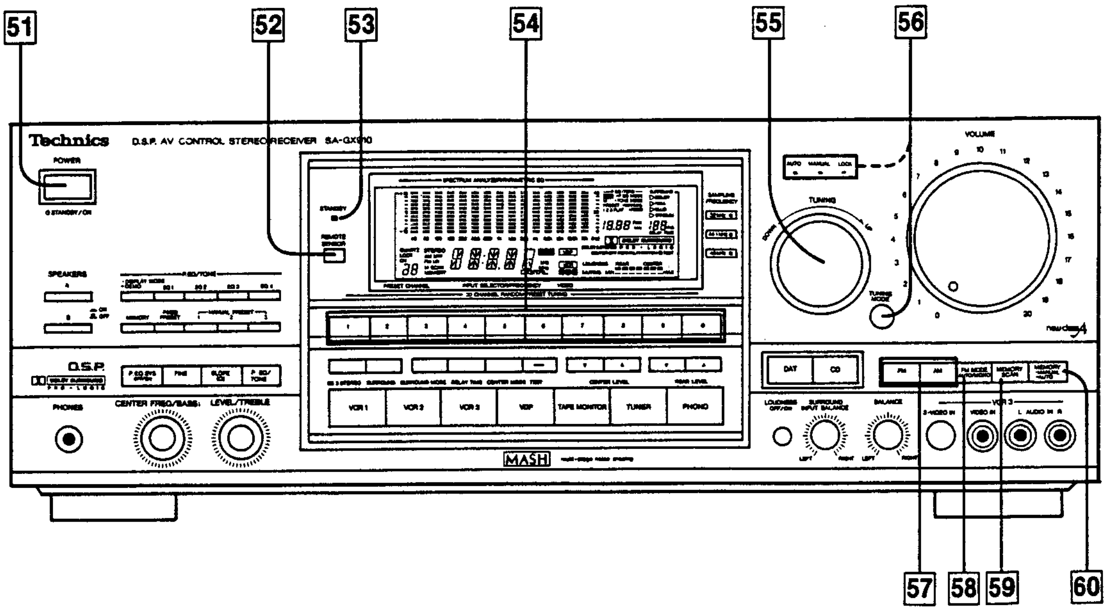
When using the center speaker and the rear speakers, press this button to activate the test signal. Then adjust the volume balance of the center speaker and rear speakers.

49 Center speaker level adjustment buttons (CENTER LEVEL)

These buttons are used to adjust the volume level of the center speaker.

50 Rear speaker level adjustment buttons (REAR LEVEL)

These buttons are used to adjust the volume level of the rear speakers.


51
52
53
54
55
56
Technics
D.S.P. AV CONTROL STEREO RECEIVER SA-GX910
POWER
SPEAKERS
D.S.P.
PHONES
CENTER FREQ./BASS
LEVEL/TREBLE
STANDBY
REMOTE SENSOR
TUNING
VOLUME
VCR 1
VCR 2
VCR 3
VDP
TAPE MONITOR
TUNER
PHONO
MASH
DAT
CD
FM
AM
57
58
59
60

Tuner section

51 Power "⏻ STANDBY/ON" switch (POWER/⏻ STANDBY/ON)

52 Remote-control signal receptor (REMOTE SENSOR)

Receives the signals from the remote-control.

53 "STANDBY" indicator (STANDBY)

This indicator illuminates when the power switch of this unit or that of the remote-control is switched "OFF". Its purpose is to alert the user of the constant supply voltage to the internal circuitry even with the power switch OFF.

54 Preset-tuning buttons (1 – 0) (30 CHANNEL RANDOM PRESET TUNING)

These buttons are used to preset broadcast frequencies into the memory of this unit and to recall the desired preset stations.

55 Tuning control (TUNING)

This control is used to select an FM or AM broadcast.
When turning the control to the left, the frequency changes downward. When turning the control to the right, the frequency changes upward.

56 Tuning-mode selector/indicator (TUNING MODE)

Each time this selector is pressed, the selection changes, in sequence, to "AUTO", "MANUAL" and "LOCK".

AUTO:
In this position, broadcast channels are automatically selected when the tuning control is momentarily turned to the left or right to start the frequency changing.

MANUAL:
In this position, the tuning control can be used to locate the desired channel manually.
The frequency changes only as the tuning control is turned to the right or left.

LOCK:
In this position, the broadcast channel presently being heard is locked in, and other broadcast stations cannot be tuned to, even if the tuning control is turned.

57 Band selectors

FM: Press this button to listen to an FM broadcast.
AM: Press this button to listen to an AM broadcast.

58 FM mode selector (FM MODE)

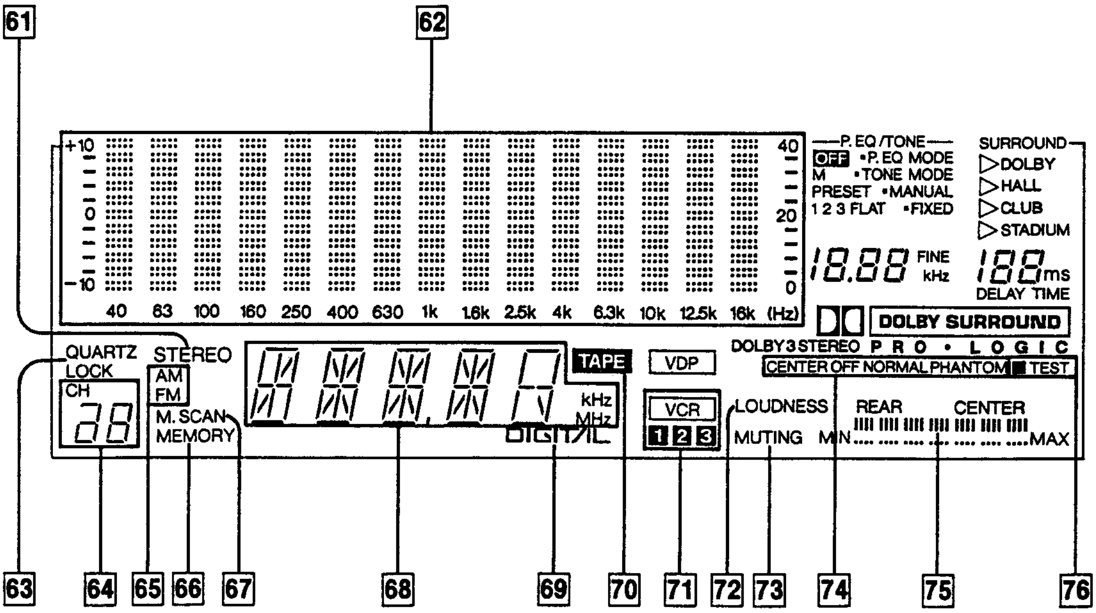
This unit automatically switches to the stereo mode when an FM stereo broadcast is received. This selector is used to select the mode (stereo or monaural) of FM broadcast signals.

59 Memory scan button (MEMORY SCAN)

This button is used to locate a desired broadcast station; each broadcast station is selected for about 3 seconds.

60 Memory button (MEMORY)

This button is used when presetting broadcast station frequencies into memory.


61
62
+10
0
−10
40
63
100
160
250
400
630
1k
1.6k
2.5k
4k
6.3k
10k
12.5k
16k
(Hz)
40
20
0
P. EQ /TONE
OFF •P. EQ MODE
M •TONE MODE
PRESET •MANUAL
1 2 3 FLAT •FIXED
SURROUND
▷DOLBY
▷HALL
▷CLUB
▷STADIUM
FINE
kHz
ms
DELAY TIME
DOLBY SURROUND
DOLBY 3 STEREO
PRO • LOGIC
CENTER OFF NORMAL PHANTOM ■ TEST
QUARTZ LOCK
STEREO
AM
FM
CH
M. SCAN
MEMORY
TAPE
VDP
kHz
MHz
DIGITAL
VCR
1 2 3
LOUDNESS
MUTING
REAR
CENTER
MIN
MAX
63
64
65
66
67
68
69
70
71
72
73
74
75
76

Display section

61 FM stereo indicator (STEREO)

This indicator automatically illuminates when an FM stereo broadcast is being received.

Note:

It will not illuminate if the FM mode selector is set to the monaural mode.

62 Spectrum analysis/parametric EQ level display (SPECTRUM ANALYZER/PARAMETRIC EQ)

This display shows the spectrum analysis level ("Bar-type display" or "Dot display") or equalization level.

63 Quartz-lock indicator (QUARTZ LOCK)

This indicator illuminates when the unit is tuned precisely to a broadcast station.

64 Channel display

This display shows the channel number selected by one of the preset-tuning buttons.

Also this display shows the channel number for about 3 seconds during memory scan operation.

65 Band indicators (AM/FM)

Indicates the selected band.

66 Memory indicator (MEMORY)

This indicator illuminates when the memory button is pressed.

67 Memory scan indicator (M. SCAN)

This indicator illuminates when the memory scan button is pressed.

68 Audio input selector/frequency display (INPUT SELECTOR/FREQUENCY)

Displays the selected source or broadcast frequency.

69 Digital indicator

This indicator will illuminate when listening to compact discs or digital audio tapes through optical-fiber cable connections.

70 Tape indicator (TAPE)

This indicator will illuminate when the tape-monitor switch is pressed.

71 VCR display (VCR)

This display shows the VCR to be used.

72 Loudness indicator (LOUDNESS)

This indicator will illuminate when the loudness switch is pressed.

73 Muting indicator (MUTING)

This indicator will illuminate when the muting button (on the remote-control transmitter) is pressed.

74 Center mode indicators

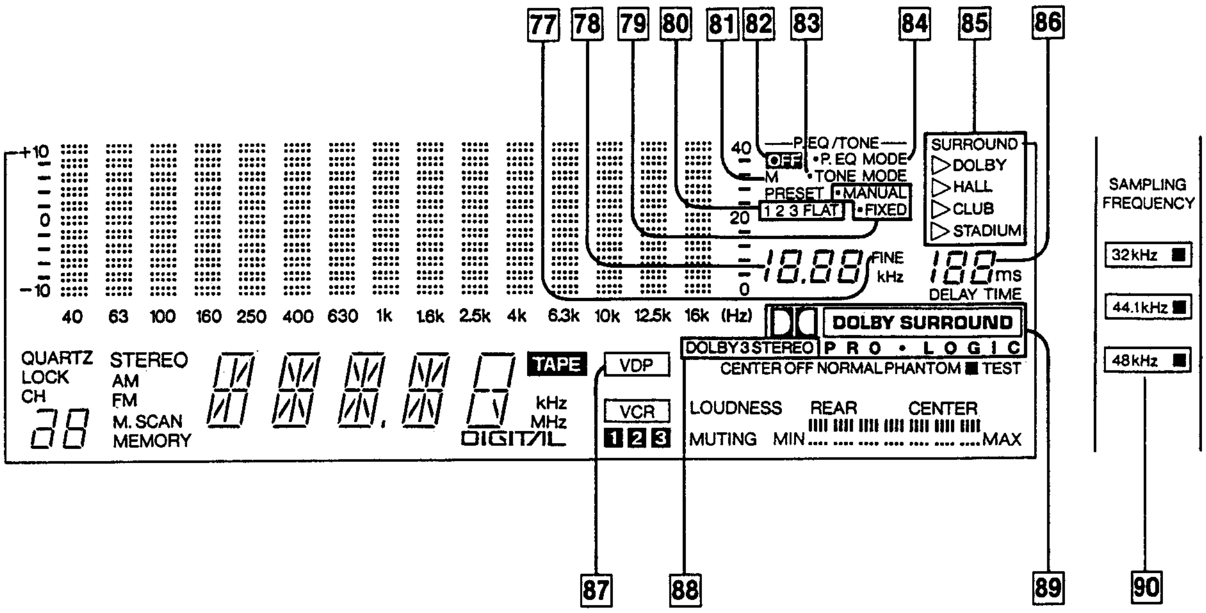
These indicators show the center mode selected by the center mode select button.

75 Rear/center level indicator

Displays the level adjusted by the center speaker level adjustment button or rear speaker level adjustment button.

76 Test signal indicator (■ TEST)

This indicator illuminates when the test signal transmission button is pressed in the Dolby Pro-Logic Surround mode and the Dolby 3 stereo mode.


77
78
79
80
81
82
83
84
85
86
87
88
89
90
+10
0
−10
40
63
100
160
250
400
630
1k
1.6k
2.5k
4k
6.3k
10k
12.5k
16k
(Hz)
40
20
0
P.EQ /TONE
OFF
• P. EQ MODE
M
• TONE MODE
PRESET
• MANUAL
1 2 3 FLAT
• FIXED
FINE
kHz
ms
DELAY TIME
SURROUND
▷DOLBY
▷HALL
▷CLUB
▷STADIUM
SAMPLING FREQUENCY
32kHz
44.1kHz
48kHz
DOLBY SURROUND
DOLBY 3 STEREO
P R O • L O G I C
CENTER OFF NORMAL PHANTOM ■ TEST
LOUDNESS
REAR
CENTER
MUTING
MIN
MAX
QUARTZ LOCK
CH
STEREO
AM
FM
M.SCAN
MEMORY
TAPE
VDP
VCR
1 2 3
kHz
MHz
DIGITAL

77 Fine mode indicator (FINE)

This indicator illuminates when the fine mode select button is selected in the parametric EQ mode.

78 Parametric EQ system center frequency display

It displays the center frequency of the curves in the parametric EQ mode arranged by the user with the parametric EQ system or the curves pre-stored in this unit's memory.

79 Parametric EQ system operation select indicators (MANUAL/FIXED)

One of these indicators will illuminate in accordance with the fixed preset button or equalization preset buttons setting.

80 Manual/fixed preset indicators (1 2 3 FLAT)

It displays the type of curve selected with the equalization preset buttons or fixed preset button in the parametric EQ mode.

81 Parametric EQ system memory indicator (M)

This indicator illuminates when the parametric EQ system memory button is pressed in the parametric EQ mode.

82 Parametric EQ system off indicator (OFF)

This indicator illuminates when the parametric EQ system is off.

83 Tone mode indicator (TONE MODE)

This indicator illuminates when the parametric EQ/tone mode select button is set to the tone mode.

84 Parametric EQ mode indicator (P.EQ MODE)

This indicator illuminates when the parametric EQ/tone mode select button is set to the parametric EQ mode.

85 Surround mode display (SURROUND)

This display shows the surround mode selected by the surround mode select button.

86 Delay time display (DELAY TIME)

This display shows the length of the delay time selected for the surround feature.

87 VDP indicator (VDP)

This indicator illuminates when the input selector marked "VDP" is pressed.

88 Dolby 3 stereo indicator (DOLBY 3 STEREO)

This indicator illuminates when the Dolby 3 stereo ON/OFF button is switched ON.

89 Dolby Pro-Logic Surround indicator (DD DOLBY SURROUND PRO-LOGIC)

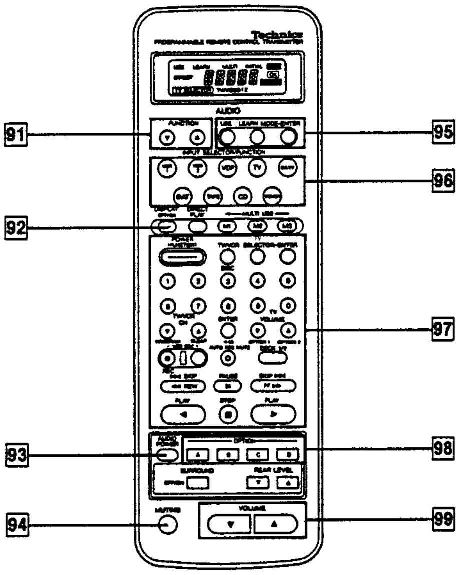
This indicator illuminates when the Dolby Pro-Logic Surround mode is selected.

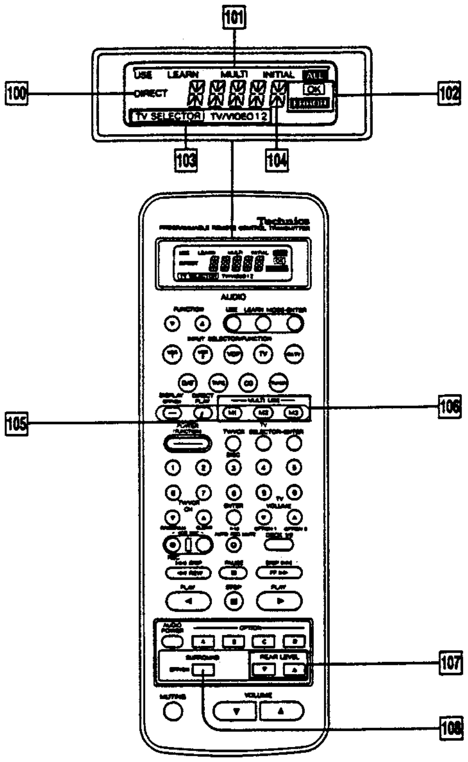
90 Sampling frequency indicators (SAMPLING FREQUENCY)

The appropriate indicator will illuminate whenever a digital signal with one of the sampling frequencies listed below is detected at a "DIGITAL" terminal on the rear panel of this unit.

32 kHz: For digital signals with the sampling frequency of 32 kHz mode
44.1 kHz: CD and others
48 kHz: For digital signals with the sampling frequency of 48 kHz mode

Note: Some digital components (compact disc player, etc.) emit digital signals whenever their power switches are "on".





Remote control section

91 Function select keys

These keys are used to select the component to be controlled by this remote-control transmitter.

92 Display OFF/ON key

This key is used to switch ON or OFF the display of this remote-control transmitter.
It automatically goes "OFF" when the display is not used for approximately 18 minutes.

93 Audio power key

This key is used to switch ON or OFF the power of the receiver.

94 Muting key

This key is used to temporarily reduce the volume level.
The volume level is attenuated by 20 dB (approx. 1/10).
Press once again to resume to the previous volume level.

95 Operation mode select keys

These keys are used to select the operation mode to be operated by this remote-control transmitter.

USE: Select the "USE" key to set this remote-control transmitter for normal operation.

LEARN MODE: Select the "LEARN MODE" key to set this remote-control transmitter to the "LEARN" mode.

ENTER: Select the "ENTER" key to select the mode. (See item 101.)

96 Input/function select keys

These keys are used to select the input source at the component and to select the component to be controlled by this remote-control transmitter.

97 Operation keys

These keys are used to select the desired function of the selected component.

98 Optional keys

These keys are used to memorize a code to be used frequently.

99 Volume keys

These keys are used to adjust the volume level.

100 Direct indicator

This indicator illuminates when this remote-control transmitter is set to the "DIRECT PLAY" mode.

101 Operation mode indicators

One of these indicators shows the operation mode to be operated by this remote-control transmitter.

102 OK / ERROR indicators

103 TV input indicator

104 Component display

This display shows which of the component functions has been selected.
The display shows "FULL" if memory capacity is exceeded when signals from another remote-control transmitter are memorized.

105 Direct play key

This key is used to change this remote-control transmitter to the "DIRECT PLAY" mode.

106 Multi-function keys

These keys are used to memorize a series of codes (up to 8 codes) and transmit these codes in a single operation.

107 Rear speaker volume keys

These keys are used to adjust the volume level of the rear speaker systems.

108 Surround ON/OFF key

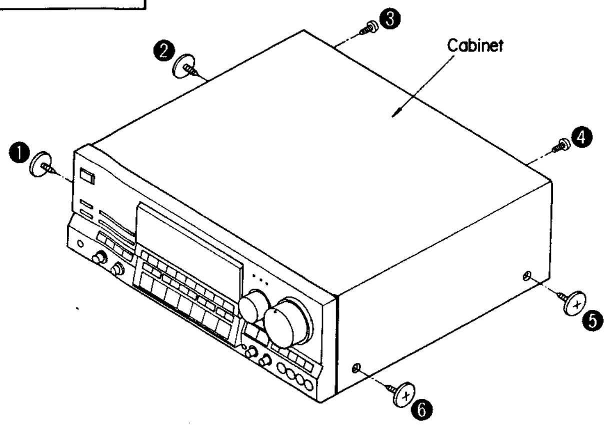
This key is used to activate the surround effect.
When this key is switched OFF, no sound will be heard from the center speaker and surround speaker systems.

■ DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1 — **Removal of the cabinet**

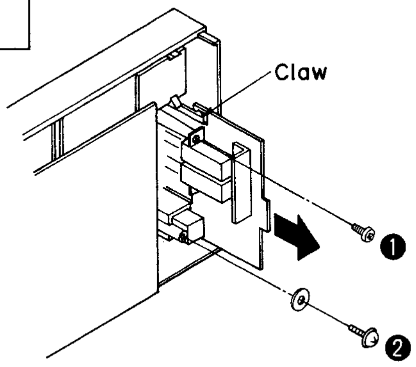
Procedure 1


❸
❷
Cabinet
❶
❹
❺
❻

- Remove the 6 screws (❶~❻).

Ref. No. 3 — **Removal of the speaker switch/ headphones jack P.C.B.**

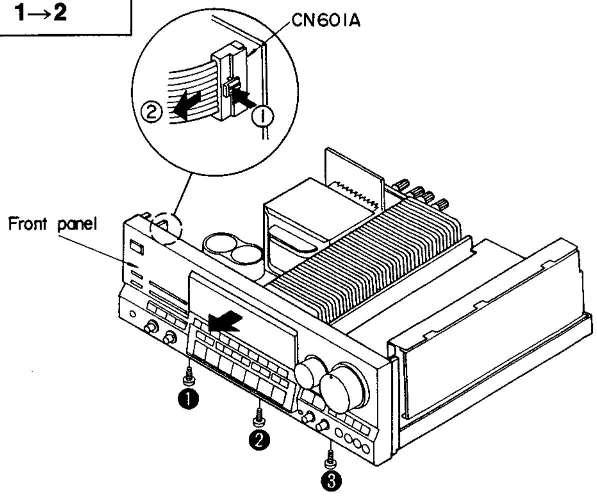
Procedure 1→2→3



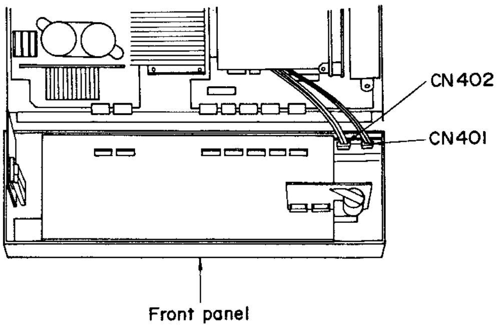
1. Remove the 2 screws (❶, ❷).
2. Release the 1 claw.

Ref. No. 2 — **Removal of the front panel**

Procedure 1→2


CN601A
②
①
Front panel
❶
❷
❸

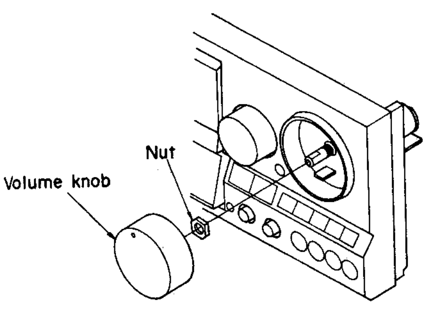
1. Remove the 3 screws (❶~❸).
2. Remove the 1 connector (CN601A).
3. Remove the front panel in the direction of arrow.


CN402
CN401
Front panel

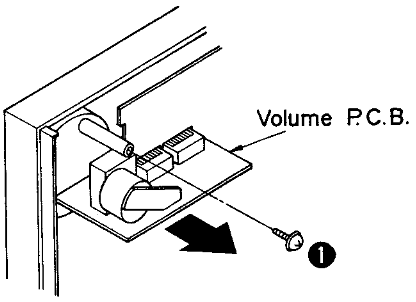
4. Remove the 2 connectors (CN401, 402)

Ref. No. 4 — **Removal of the volume P.C.B.**

Procedure 1→2→4


Nut
Volume knob

1. Pull out the volume knob.
2. Remove the nut.

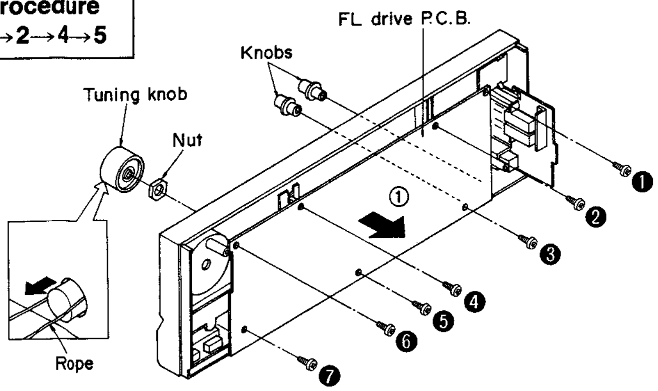

Volume P.C.B.
❶

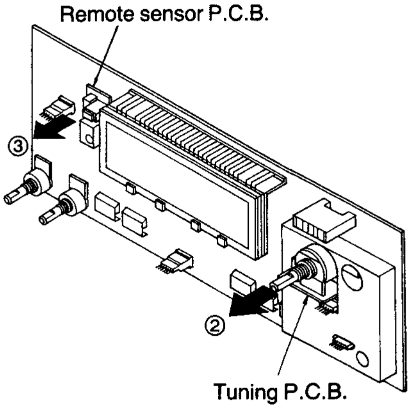
3. Remove the 1 screw (❶).
4. Remove the volume P.C.B. in the direction of arrow.

Ref. No 5

Removal of the FL drive P.C.B. tuning P.C.B. and remote sensor P.C.B.

Procedure
1→2→4→5


FL drive P.C.B.
Knobs
Tuning knob
Nut
Rope
①
❶
❷
❸
❹
❺
❻
❼

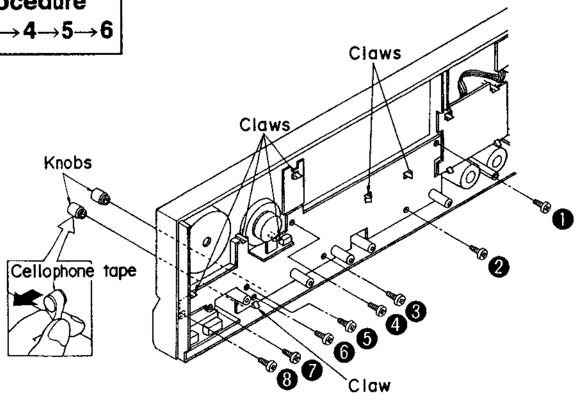

Remote sensor P.C.B.
③
②
Tuning P.C.B.

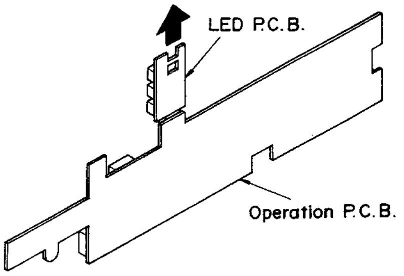
1. Pull out the tuning knob.
2. Remove the nut.
3. Pull out the 2 knobs.
4. Remove the 7 screws (❶~❼).
5. Remove the FL drive P.C.B. in the direction of arrow ①.
6. Remove the tuning P.C.B. in the direction of arrow ②.
7. Remove the remote sensor P.C.B. in the direction of arrow ③.

Ref. No 6

Removal of the operation P.C.B. and LED P.C.B.

Procedure
1→2→4→5→6


Claws
Claws
Knobs
Cellophone tape
❶
❷
❸
❹
❺
❻
❼
❽
Claw

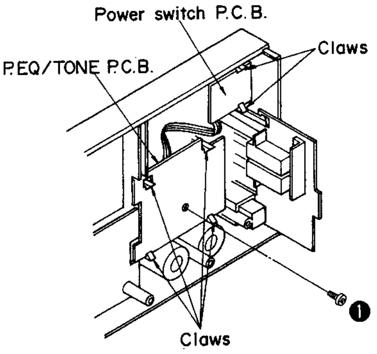

LED P.C.B.
Operation P.C.B.

1. Pull out the 2 knobs.
2. Remove the 8 screws (❶~❽).
3. Release the 7 claws.
4. Remove the LED P.C.B. in the direction of arrow.

Ref. No 7

Removal of the power switch P.C.B. and P.EQ/TONE P.C.B.

Procedure
1→2→4→5→7


Power switch P.C.B.
P.EQ/TONE P.C.B.
Claws
❶
Claws

■ POWER SWITCH P.C.B.

- Release the 2 claws.

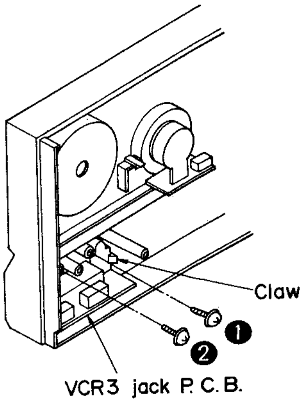
■ P.EQ/TONE P.C.B.

1. Remove the 1 screw (❶).
2. Release the 4 claws.

Ref. No 8

Removal of the VCR3 jack P.C.B.

Procedure
1→2→4→5→6→8

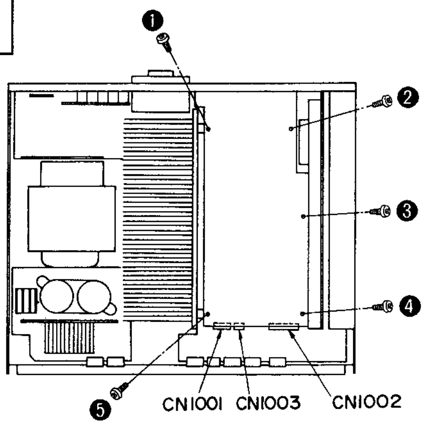

Claw
❶
❷
VCR3 jack P.C.B.

1. Remove the 2 screws (❶, ❷).
2. Release the 1 claw.

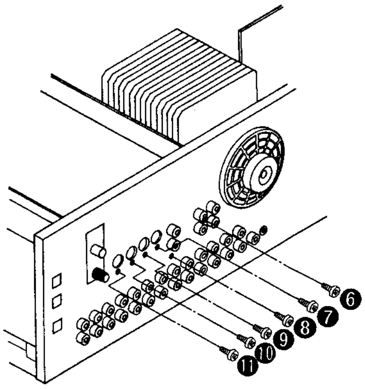
Ref. No.
9

Removal of the video P.C.B.

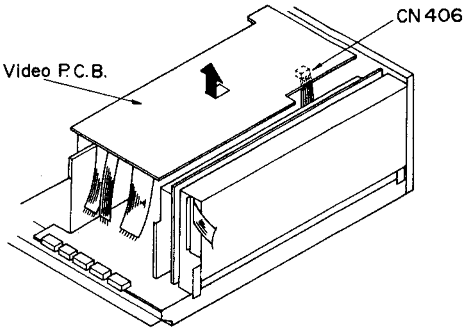
Procedure
1→2→9


❶
❷
❸
❹
❺
CN1001
CN1003
CN1002

1. Remove the 3 flat cables (CN1001, CN1002, CN1003).
2. Remove the 5 screws (❶~❺).



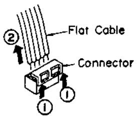
3. Remove the 6 screws (❻~⓫).


CN 406
Video P.C.B.

4. Remove the video P.C.B. in the direction of arrow.
5. Remove the 1 flat cable (CN406).

How to remove the flat cable

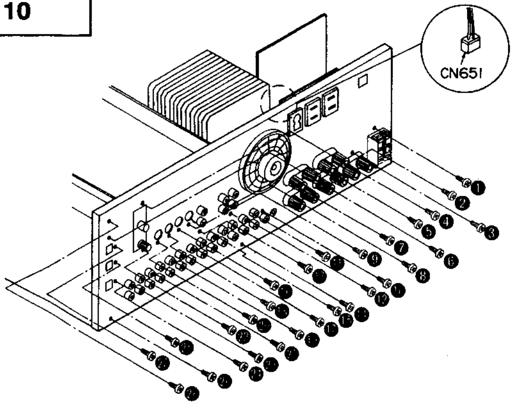
1. Lift the connector.
2. Pull out the flat cable.


Flat Cable
Connector
②
①
①

Ref. No.
10

Removal of the rear panel.

Procedure
1→10

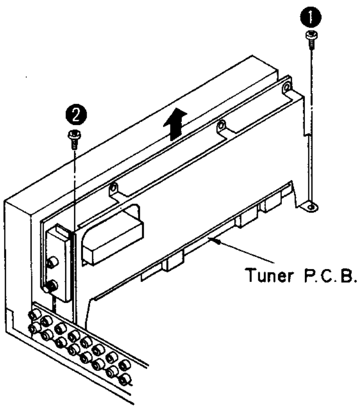

CN651
❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
⓬
⓭
⓮
⓯
⓰
⓱
⓲
⓳
⓴
㉑
㉒
㉓
㉔
㉕
㉖
㉗
㉘

1. Remove the 1 connector (CN651).
2. Remove the 28 screws (❶~㉘).

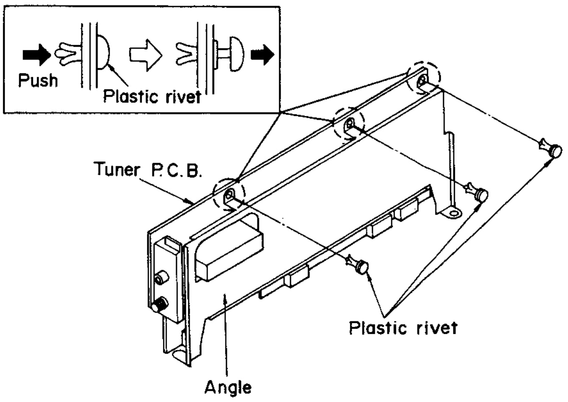
Ref. No.
11

Removal of the tuner P.C.B.

Procedure
1→2→9→10→
11


❶
❷
Tuner P.C.B.

1. Remove the 2 screws (❶, ❷).
2. Remove the tuner P.C.B. in the direction of arrow.

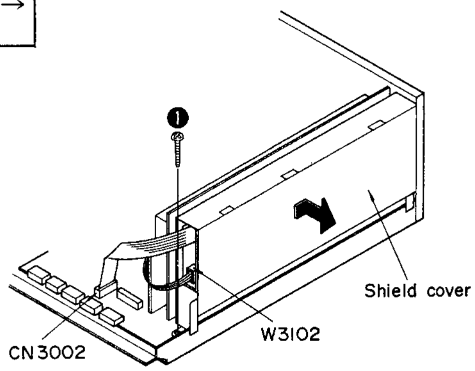

Push
Plastic rivet
Tuner P.C.B.
Plastic rivet
Angle

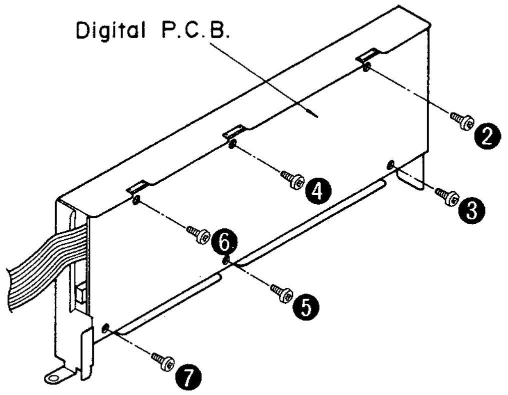
3. Remove the plastic rivet.

Ref. No.
12

Removal of the digital P.C.B.

Procedure
1→2→9→10→
12


❶
Shield cover
W3102
CN3002

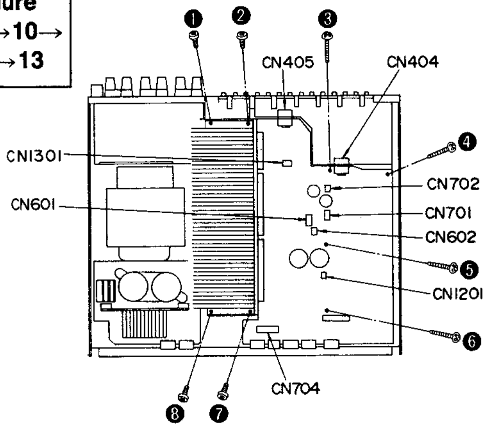

Digital P.C.B.
❷
❹
❸
❻
❺
❼

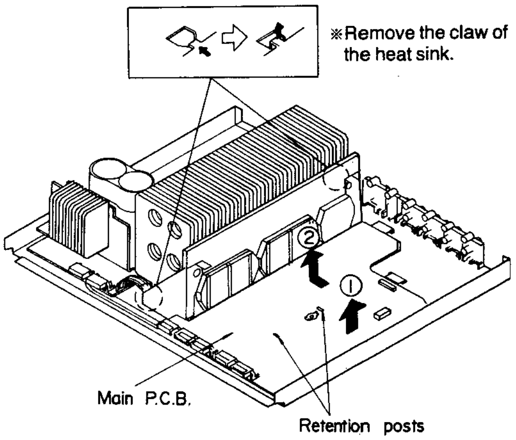
1. Remove the 1 connector (W3102).
2. Remove the 1 flat cable (CN3002).
3. Remove the 1 screw (❶).
5. Remove the 6 screws (❷~❼).

Ref. No.
13

Removal of the main P.C.B.

Procedure
1→2→9→10→
11→12→13


❶
❷
❸
CN405
CN404
CN1301
CN601
❹
CN702
CN701
CN602
❺
CN1201
❻
CN704
❽
❼


②
①
Main P.C.B.
Retention posts

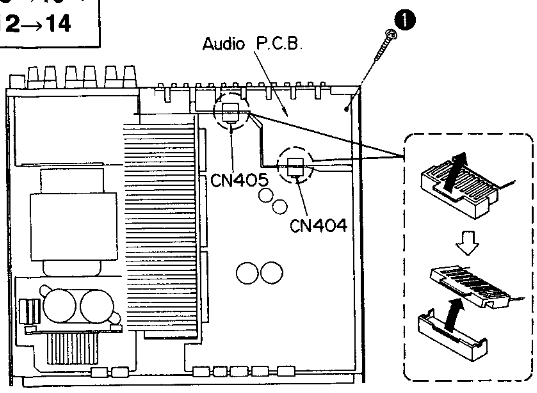
※Remove the claw of the heat sink.

1. Remove the 4 flat cables (CN701, CN702, CN704, CN1301).
2. Remove the 5 connectors (CN404, CN405, CN601, CN602, CN1201).
3. Remove the 8 screws (❶~❽).
4. Remove the main P.C.B. from the retention post to lift it toward the arrow ①.
5. Remove the main P.C.B. in the direction of arrow ②.

Ref. No.
14

Removal of the audio P.C.B.

Procedure
1→2→9→10→
11→12→14

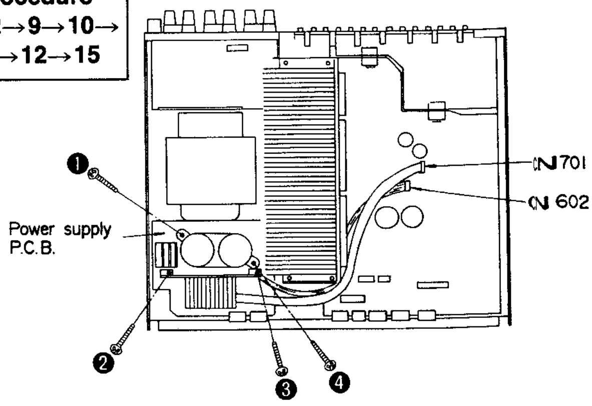

❶
Audio P.C.B.
CN405
CN404

1. Remove the 2 connectors (CN404, CN405).
2. Remove the 1 screw (❶).

Ref. No.
15

Removal of the power supply P.C.B.

Procedure
1→2→9→10→
11→12→15

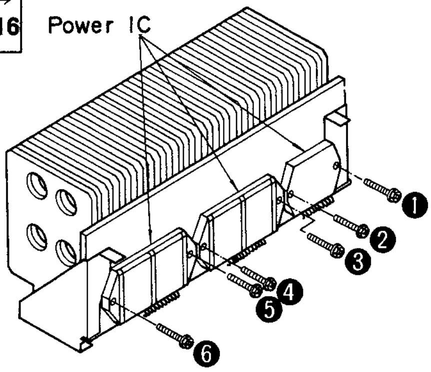

❶
CN701
CN 602
Power supply
P.C.B.
❷
❸
❹

1. Remove the 1 flat cable (CN701).
2. Remove the 1 connector (CN602).
3. Remove the 4 screws (❶~❹).

Ref. No. 16

Removal of the power IC

Procedure
1→2→9→10→11→12→13→16


Power IC
❶
❷
❸
❹
❺
❻

1. Unsolder the power IC.
2. Remove the 6 screws (❶~❻).

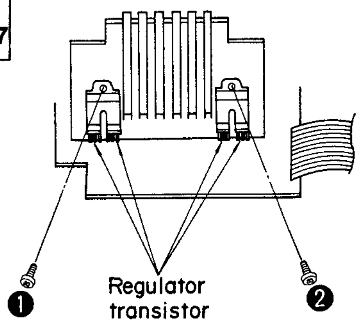
•When mounting the power IC.

Apply silicone compound (SZZ0L15) to the rear side of power IC.

Ref. No. 17

Removal of the regulator transistor

Procedure
1→2→9→10→11→12→15→17


❶
Regulator transistor
❷

1. Unsolder the regulator transistor.
2. Remove the 2 screws (❶, ❷).

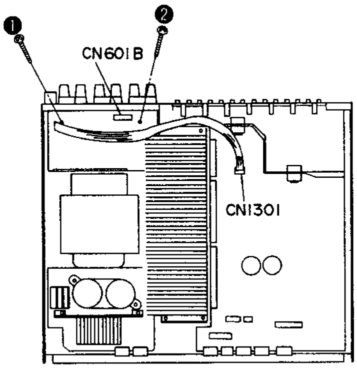
•When mounting the regulator transistor.

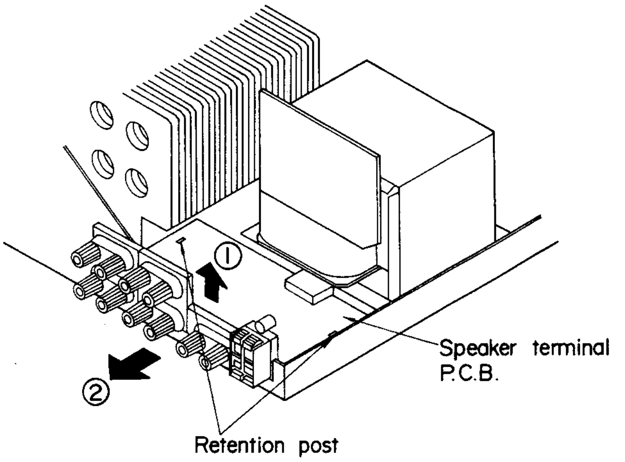
Apply silicone compound (SZZ0L15) to the rear side of regulator transistor.

Ref. No. 18

Removal of the speaker terminal P.C.B.

Procedure
1→2→9→10→11→12→18


❶
❷
CN601B
CN1301

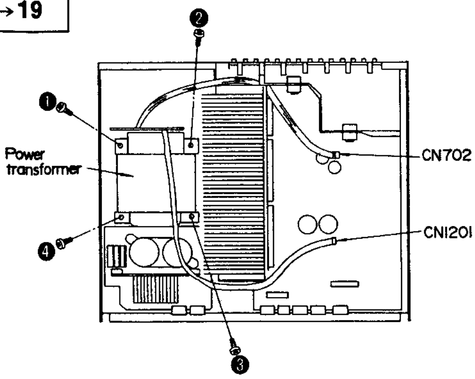

①
②
Speaker terminal P.C.B.
Retention post

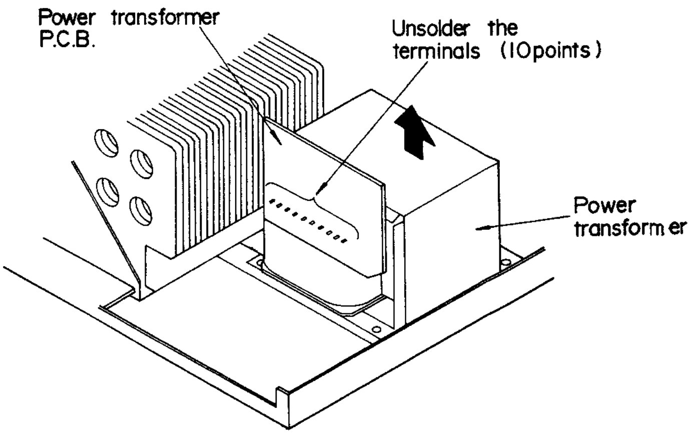
1. Remove the 1 flat cable (CN1301).
2. Remove the 1 connector (CN601B).
3. Remove the 2 screws (❶, ❷).
4. Remove the speaker terminal P.C.B. from the retention post to lift it toward the arrow ①.
5. Remove the speaker terminal P.C.B. in the direction of arrow ②.

Ref. No. 19

Removal of the power transformer and power transformer P.C.B.

Procedure
1→2→9→10→11→12→19


❶
❷
❸
❹
Power transformer
CN702
CN1201

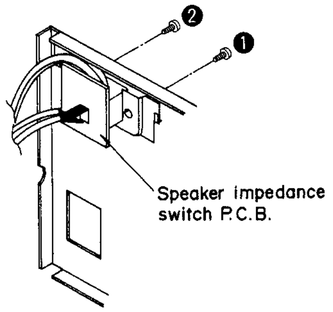

Power transformer P.C.B.
Unsolder the terminals (10points)
Power transformer

1. Remove the 1 flat cable (CN702).
2. Remove the 1 connector (CN1201).
3. Remove the 4 screws (❶~❹).
4. Unsolder the terminals of the power transformer.
5. Remove the power transformer in the direction of arrow.

Ref. No.
20

Removal of the speaker impedance switch P.C.B.

Procedure
1→20

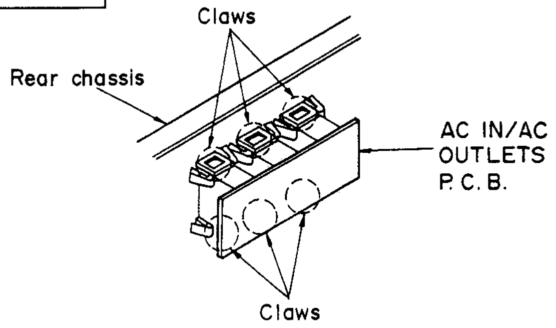

❷
❶
Speaker impedance switch P.C.B.

1. Remove the 2 screws (❶, ❷).
2. Remove the speaker impedance switch P.C.B. in the direction of arrow.

Ref. No.
21

Removal of the AC IN/AC OUTLETS P.C.B.

Procedure
1→10→21

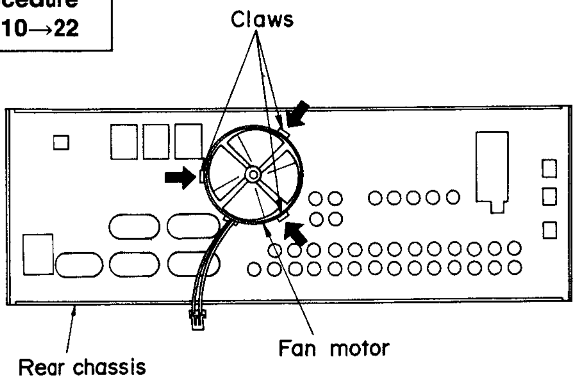

Claws
Rear chassis
AC IN/AC OUTLETS P.C.B.
Claws

- Release the 6 claws.

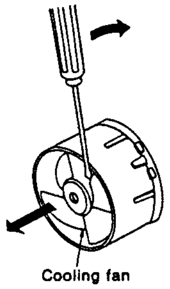
Ref. No.
22

Removal of the fan motor

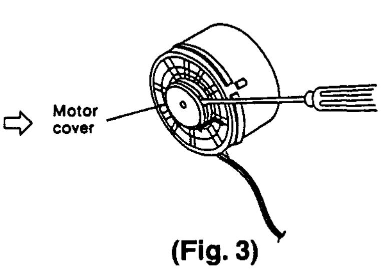
Procedure
1→10→22


Claws
Rear chassis
Fan motor

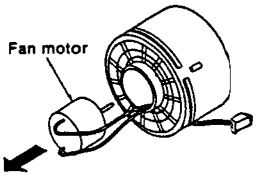
(Fig. 1)


Cooling fan

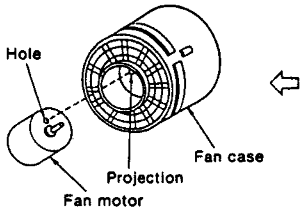
(Fig. 2)


Motor cover

(Fig. 3)



(Fig. 4)


Hole
Fan case
Projection
Fan motor

(Fig. 5)

1. Release the 3 claws. (See Fig. 1)
2. Insert a screwdriver at the root of the cooling fan. Force it out of the motor shaft. (See Fig. 2)
3. Remove the motor cover by used ⊖ screwdriver. (See Fig. 3)
4. Remove the motor from the fan casing. (See Fig. 4)
5. When mounting the motor fan, align the fan casing's projection with the hole of the fan motor. (See Fig. 5)

Ref. No.
23

How to check the digital P.C.B.

Procedure
1→10→23

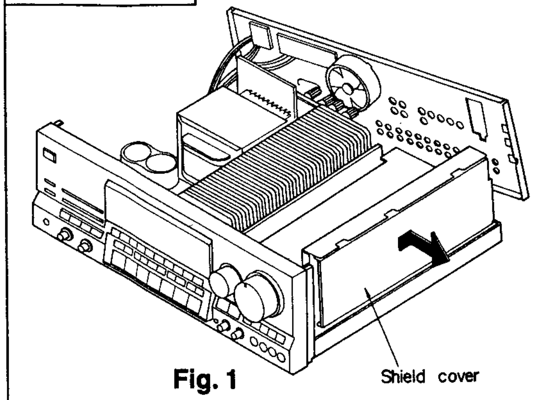

Shield cover

Fig. 1

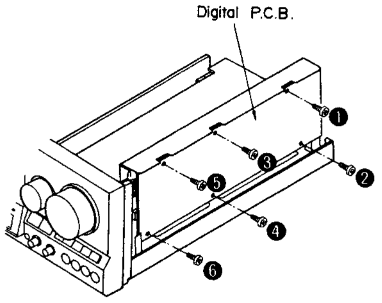

Digital P.C.B.
❶
❷
❸
❹
❺
❻

Fig. 2

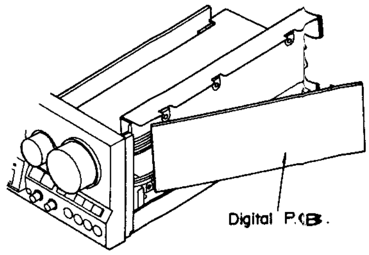

Digital P.C.B.

Fig. 3

1. Remove the shield cover in the direction of arrow.
2. When checking the soldered surface of the digital P.C.B.and replacing the parts, do as shown in the figure above.

Ref. No. 24	How to check the tuner P.C.B.
Procedure 1→10→24	

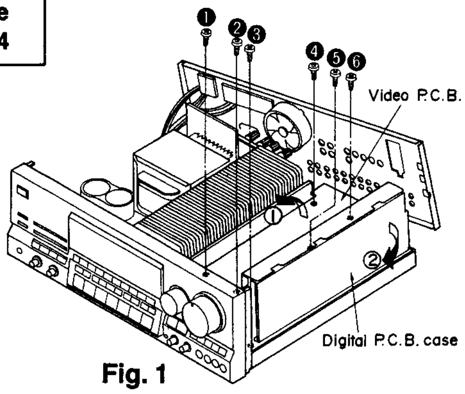
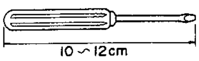

❶
❷❸
❹❺❻
Video P.C.B.
①
②
Digital P.C.B. case

Fig. 1



※When adjusting the tuner P.C.B., please use the screw driver like left figure.

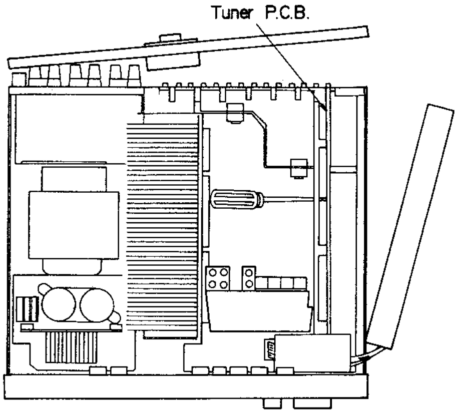


Fig. 2

1. Remove the 6 screws (❶~❻).
2. Raise the video P.C.B. toward to arrow ①.
3. Move the digital P.C.B. case toward to arrow ②.
4. When checking the soldered surface of the digital P.C.B. and replacing the parts, do as shown in the Fig. 2.

Ref No. 25	How to check the FL drive P.C.B. and operation P.C.B.
Procedure 1→2→25	

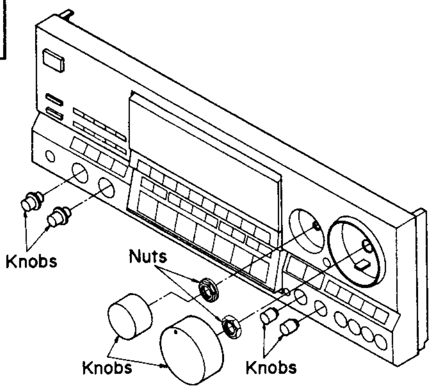

Knobs
Nuts
Knobs
Knobs

Fig. 1

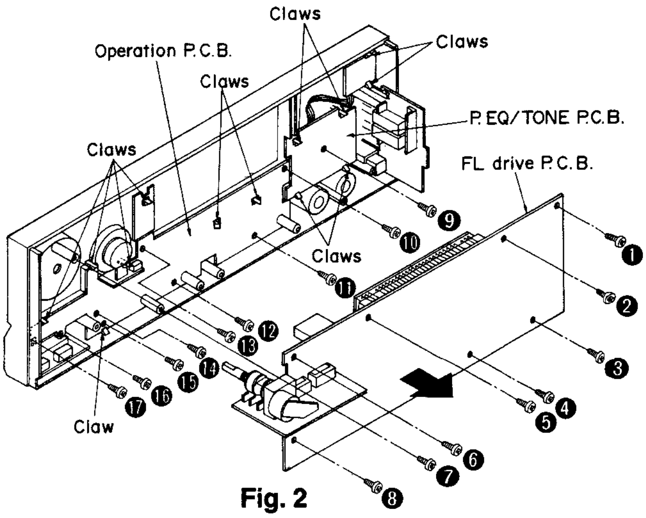

Claws
Operation P.C.B.
Claws
Claws
P. EQ/TONE P.C.B.
Claws
FL drive P.C.B.
❾
❿
Claws
⓫
❶
❷
⓬
⓭
⓮
❸
⓯
⓰
⓱
❹
❺
Claw
❻
❼
❽

Fig. 2

1. Remove the 6 knobs.
2. Remove the 2 nuts.
3. Remove the 8 screws (❶~❽).
4. Remove the FL drive P.C.B. in the direction of arrow.
5. Remove the 9 screws (❾~⓱).
6. Remove the 13 claws.
7. Remove the operation P.C.B., P.EQ/TONE P.C.B. and power switch P.C.B.

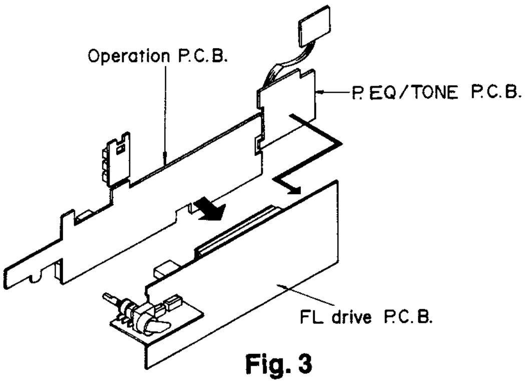

Operation P.C.B.
P. EQ/TONE P.C.B.
FL drive P.C.B.

Fig. 3

8. Connect the operation P.C.B. and P.EQ/TONE P.C.B. to FL drive P.C.B.

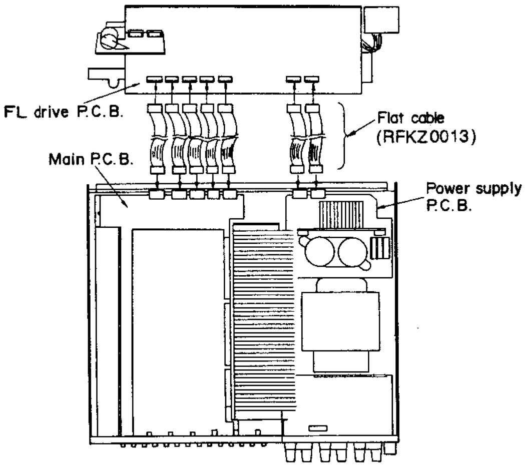

FL drive P.C.B.
Flat cable
(RFKZ0013)
Main P.C.B.
Power supply
P.C.B.

Fig. 4

9. Connect the main P.C.B. and connector of power supply P.C.B. and connector of FL drive P.C.B. with flat cables (7 places).
10. When checking the soldered surface of the FL drive P.C.B. operation P.C.B. and replacing the parts, do as shown in the Fig. 4.

Ref No.	How to check the power supply P.C.B.
26	
Procedure 1→2→26	

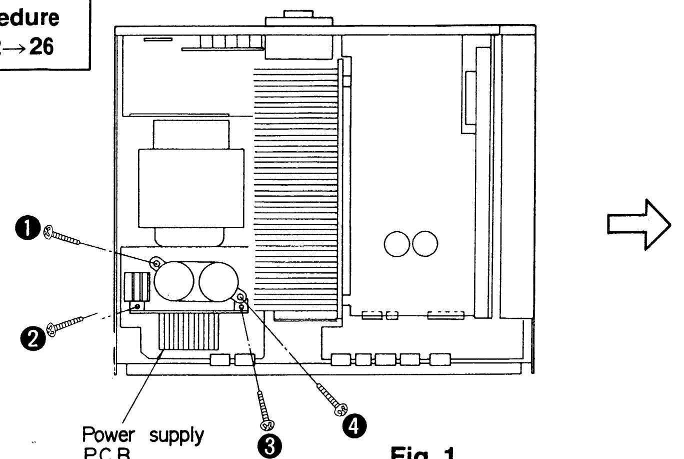

❶
❷
❸
❹
Power supply P.C.B.

Fig. 1

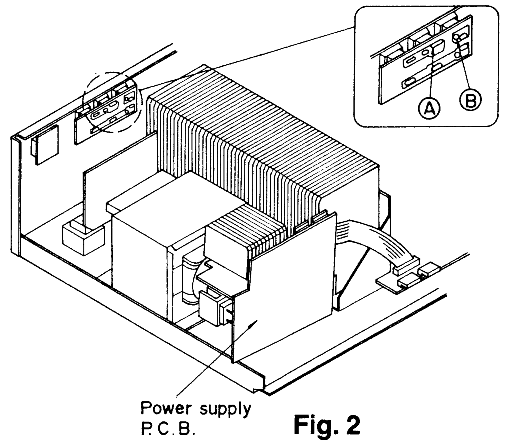

Ⓐ
Ⓑ
Power supply P.C.B.

Fig. 2

1. Remove the 4 screws (❶~❹).
2. Short Ⓐ and Ⓑ of AC inlet/outlet P.C.B.
3. When checking the soldered surface of the power supply P.C.B. and replacing the parts, do as shown in the Fig. 2.

Ref No.	How to change the H.I.C.
27	
Procedure 1→27	

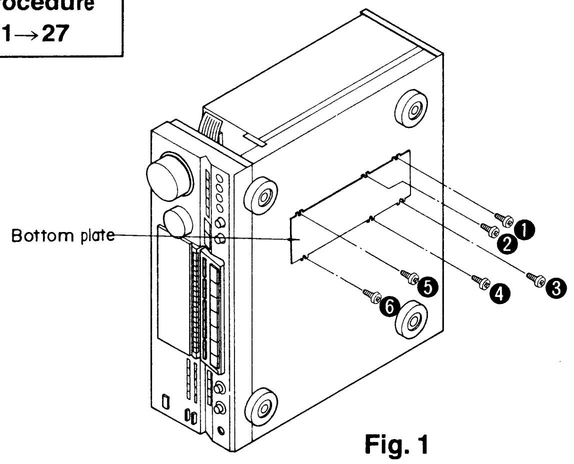

Bottom plate
❶
❷
❸
❹
❺
❻

Fig. 1

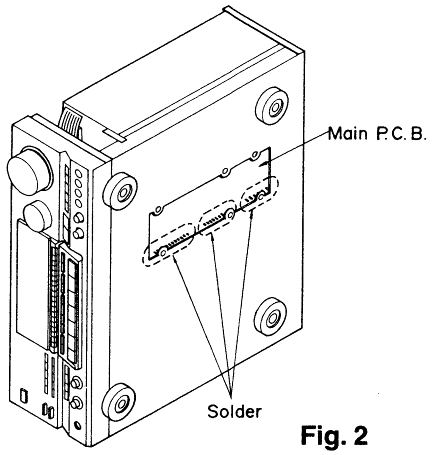
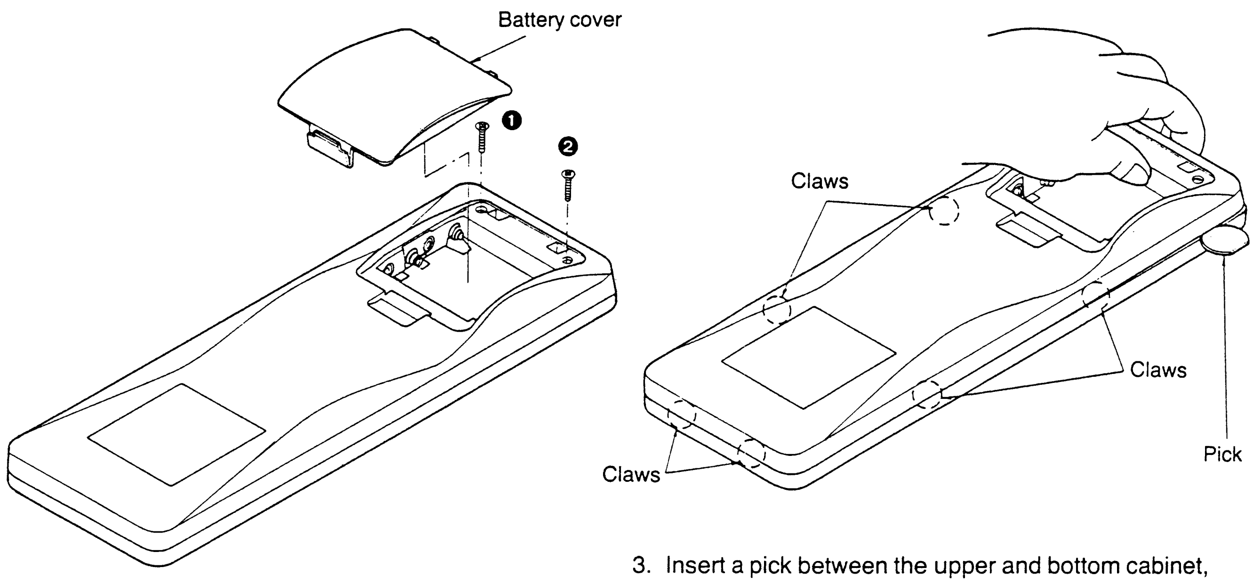

Main P.C.B.
Solder

Fig. 2

1. Remove the 6 screws (❶~❻).
2. Remove the bottom plate.
3. When checking the voltage of H.I.C. and replacing the parts, do as shown in the Fig. 2.

■ DISASSEMBLY INSTRUCTIONS (REMOTE CONTROLLER)

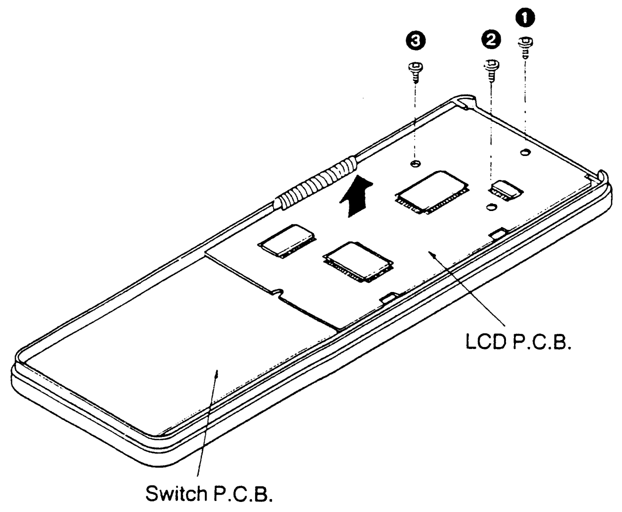
Ref. No.	Removal of the bottom cabinet
1	
Procedure 1	


Battery cover
❶
❷
Claws
Claws
Claws
Pick

1. Remove the battery cover.
2. Remove the 2 screws (❶, ❷).
3. Insert a pick between the upper and bottom cabinet, and release the 6 claws.
Caution: Take care not to damage upper and bottom cabinet.

Ref. No.	Removal of the P.C.B.
2	
Procedure 1→2	

1. Remove the 3 screws (❶~❸).
2. Remove the LCD P.C.B. and switch P.C.B. in the direction of the arrow.

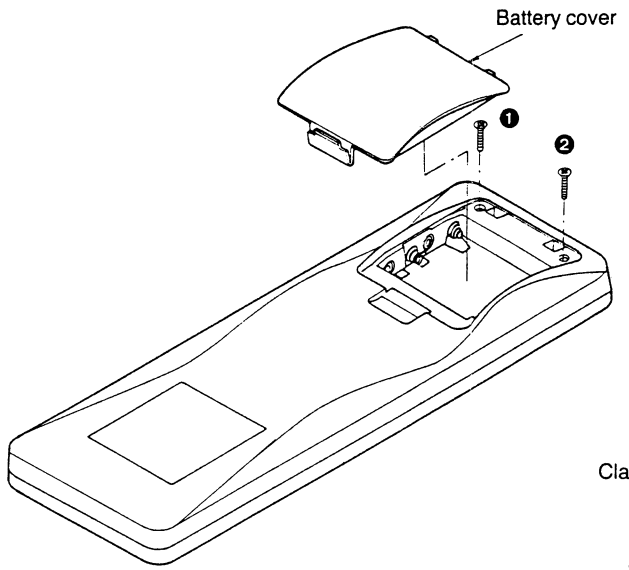

❶
❷
❸
LCD P.C.B.
Switch P.C.B.

.C.B.

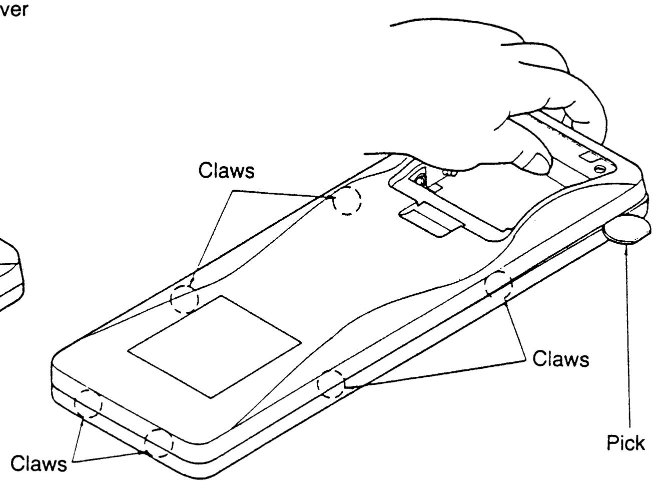
s, do

■ DISASSEMBLY INSTRUCTIONS (REMOTE CONTROLLER)

Ref. No. **1**	**Removal of the bottom cabinet**
Procedure **1**	



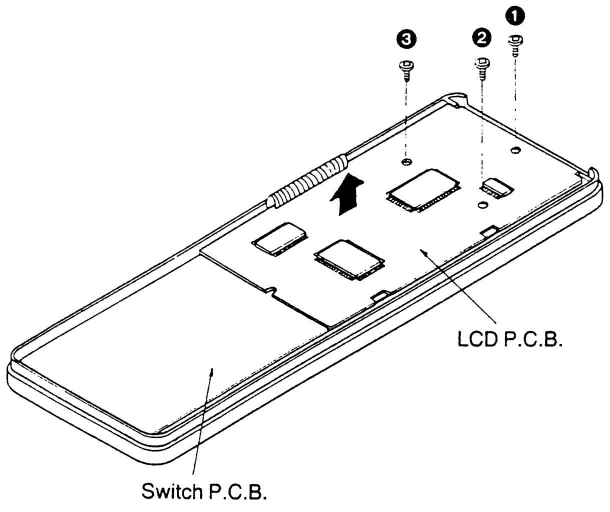
1. Remove the battery cover.
2. Remove the 2 screws (❶, ❷).



3. Insert a pick between the upper and bottom cabinet, and release the 6 claws.
   Caution: Take care not to damage upper and bottom cabinet.

Ref. No. **2**	**Removal of the P.C.B.**
Procedure **1→2**	

1. Remove the 3 screws (❶~❸).
2. Remove the LCD P.C.B. and switch P.C.B. in the direction of the arrow.



■ TROUBLESHOOTING (REMOTE CONTROLLER)

Symptom	Possible cause
LCD remains off when the DISPLAY key is activated.	R9~R11 or R30 is opened.
	R22~R29 is opened.
	IC7's pin 1 or IC1's pin 68 is shorted to ground level.
	X1 or X2 is opened.
LCD contrast is not uniform.	R9~R11 or R30 has an internal short circuit.
	Short circuit exists across pins 59~80, 1~11, or IC1's pin 21~24.
Signal transmission fails.	D3 or D4 is opened.
	Q1 has an internal open or short circuit.
	R17 is opened.
Fails to enter Learning mode.	IC2's pin 39 has an internal open circuit.
	IC2's pin 67 or IC4's pin 7 has an internal open circuit or is pulled up to High level.
Learning error occurs (transmission code error).	Short circuit exists across S-RAM's pins, or across IC2's pin 40~63, or IC1's pin 46~53, or 60~67.
Learned data evaporates immediately after the batteries are removed.	D2 has internal open or short circuit.
	C10 is opened.
Keys are inoperative.	R22~R29 is opened.

■ INITIALIZATION AFTER REPLACEMENT OF LCD, CPU OR S-RAM (REMOTE CONTROLLER)

While simultaneously pressing and holding the PLAY and SURROUND MONO keys, load batteries into the battery compartment.

↓

"S-RAM" appears on the LCD.

↓

Release the keys.

↓

"OK" will appear approx. 6 seconds later.
(If "ERROR" appeared, an open or short circuit exists on or around the S-RAM chip.)

↓

Press any key.

↓

LCD goes off.

↓

Device enters normal mode approx. 2 seconds later.

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- ●No sound is heard when the power is turned on.
- ●Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

■ BEFORE REPAIR AND ADJUSTMENT

Disconnect AC power, Discharge both Power Supply Capacitors C619 and C620 through a 10Ω, 5 W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may distroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at 120 V, 60 Hz in NO SIGNAL mode should be 650~1150 mA.

■ MEASUREMENTS AND ADJUSTMENTS

●FM ADJUSTMENT

Control positions and equipment used

- ●FM signal generator (FM-SG).
- ●Distortion analyser
- ●Oscilloscope
- ●DC electronic voltmeter (EVM)
- ●Frequency counter
- ●Choke coil (100 µH)
- ●Resistor (100 kΩ)

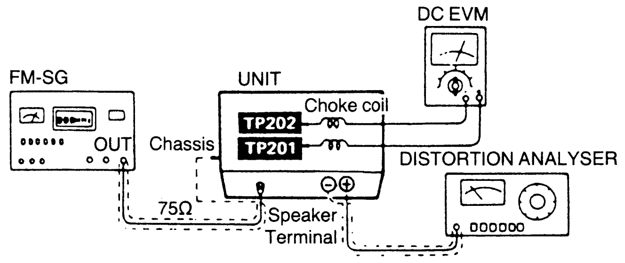
FM MONO DISTORTION AND FM OFFSET ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to **"FM"** position.
3. Set the radio frequency display and signal generator to **100.10 MHz**.
4. Adjust **T201** core so that voltage measured in signal mode is **0 mV (0±20 mV)** in **300 mV** range.
5. Adjust **T202** core so that distortion factor of L-ch is minimized.
6. Repeat step 4 and 5.
7. Make sure that the distortion factors of L-ch and R-ch are nearly the same with each other to minimum.

Note:
The adjusting screwdriver used should be made of resion.

FM SIGNAL GENERATOR CONDITION

Modulation	100%
Modulation frequency	1 kHz (MONO)
Output level	66 dB

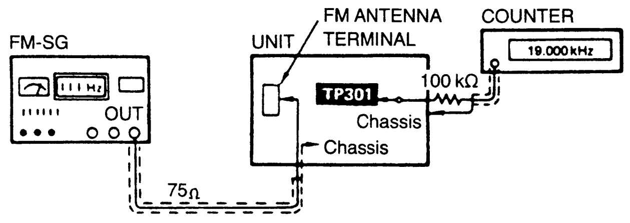

DC EVM
FM-SG
UNIT
Choke coil
TP202
TP201
OUT
Chassis
75Ω
Speaker Terminal
DISTORTION ANALYSER

FM MPX VCO ADJUSTMENT

1. Test equipment connection is shown in figure.
2. Set the unit to **"FM STEREO"** position.
3. Place the radio frequency display and signal generator setting to **100.10 MHz**.
4. Adjust **VR301** for **19.00±0.03 kHz** on frequency counter reading.

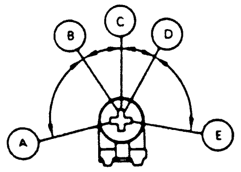
FM SIGNAL GENERATOR CONDITION

Modulation	0% (non-modulation)
Output	66 dB


FREQUENCY COUNTER
19.000kHz
FM ANTENNA
UNIT / TERMINAL
FM-SG
TP301
100 kΩ
OUT
Chassis
Chassis
75Ω

●USING ALTERNATE SYSTEM

1. Apply stereo signal from generator or receive the stereo broadcast.
2. Adjust **VR301** until stereo indicator lights up. Cement arm of **VR301** as shown in figure.

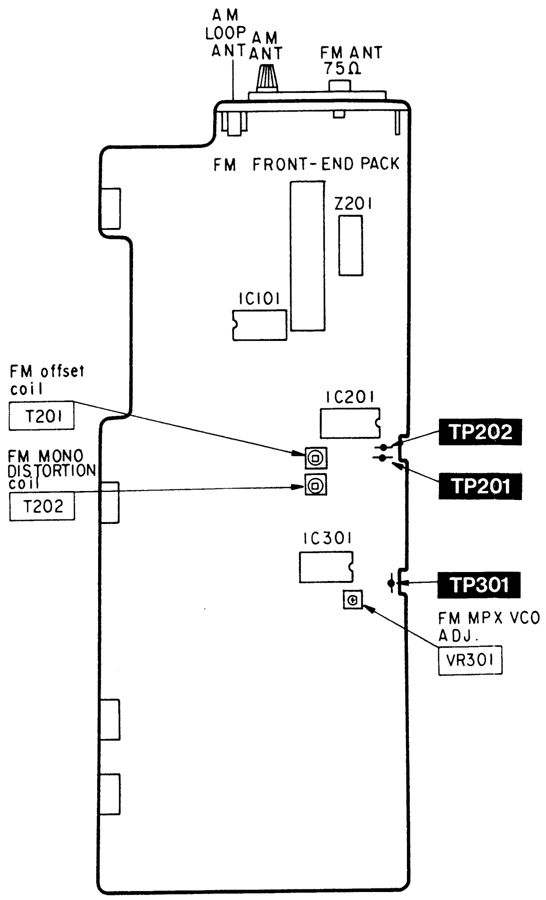


VR301

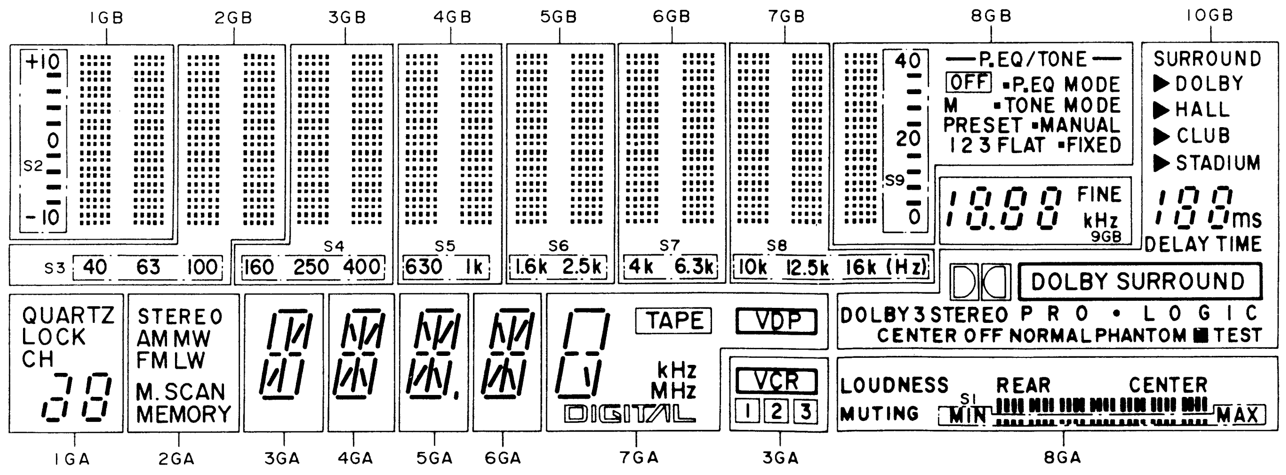
Ⓐ – Ⓑ Ⓓ – Ⓔ : Stereo OFF position
Ⓑ – Ⓓ : Stereo ON position (indicator lighting)
Ⓒ : Adjust point of pilot circuit

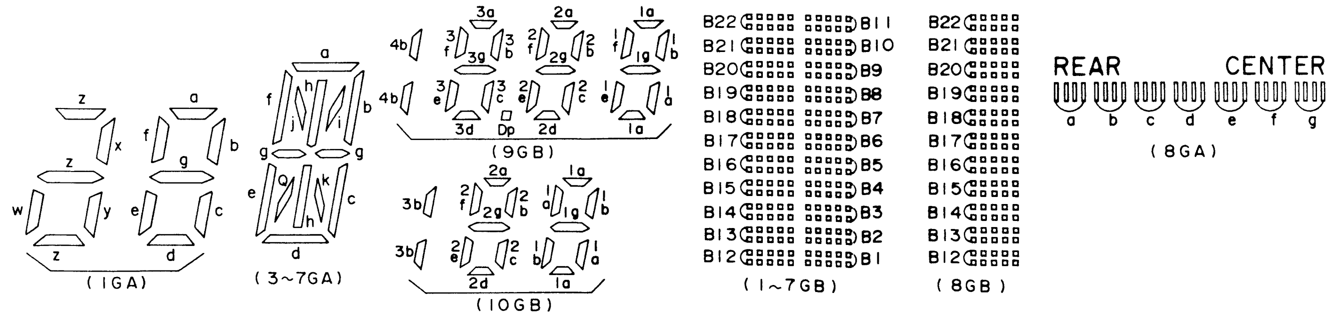
●ADJUSTMENT POINTS

Note: For Z202 (AM-IFT), and Z201 (AM ANT and OSC coil), they are supplied as adjusted parts. So, do not turn the cores of the parts.
It is not necessary to adjust the AM circuit.


AM LOOP ANT
AM ANT
FM ANT 75Ω
FM FRONT-END PACK
Z201
IC101
FM offset coil
T201
IC201
TP202
FM MONO DISTORTION coil
T202
TP201
IC301
TP301
FM MPX VCO ADJ.
VR301

■ DESCRIPTION OF FL PANEL [FL901 (RSL0089-F)]


1GB
2GB
3GB
4GB
5GB
6GB
7GB
8GB
10GB
+10
S2
-10
40
20
S9
0
—P.EQ/TONE—
OFF •P.EQ MODE
M •TONE MODE
PRESET •MANUAL
1 2 3 FLAT •FIXED
SURROUND
▶DOLBY
▶HALL
▶CLUB
▶STADIUM
FINE
kHz
9GB
ms
DELAY TIME
S3 40 63 100
S4 160 250 400
S5 630 1k
S6 1.6k 2.5k
S7 4k 6.3k
S8 10k 12.5k 16k (Hz)
DOLBY SURROUND
QUARTZ LOCK CH
STEREO AM MW FM LW
M.SCAN MEMORY
TAPE
VDP
kHz MHz
VCR
1 2 3
DIGITAL
DOLBY 3 STEREO PRO • LOGIC
CENTER OFF NORMAL PHANTOM TEST
LOUDNESS
MUTING
S1
MIN
REAR
CENTER
MAX
1GA
2GA
3GA
4GA
5GA
6GA
7GA
3GA
8GA


(1GA)
(3~7GA)
(9GB)
(10GB)
(1~7GB)
(8GB)
(8GA)
REAR
CENTER
a b c d e f g
B22 B11
B21 B10
B20 B9
B19 B8
B18 B7
B17 B6
B16 B5
B15 B4
B14 B3
B13 B2
B12 B1

●PIN CO

Pin N

Conne

Pin N

Conne

Notes:
1) F1, F2 ..

●ANODE

P1A
P2A
P3A
P4A
P5A
P6A
P7A
P8A
P9A
P10A
P11A
P12A QU
P13A

●ANODE

	1G
P1B	S
P2B	B
P3B	B
P4B	B
P5B	B
P6B	B
P7B	B
P8B	B
P9B	B
P10B	B
P11B	B1
P12B	B1
P13B	B1
P14B	B1
P15B	B1
P16B	B1
P17B	B1
P18B	B1
P19B	B1
P20B	B1
P21B	B2
P22B	B2
P23B	B2

ıw:

rect it.
ıte.

will not
hen on

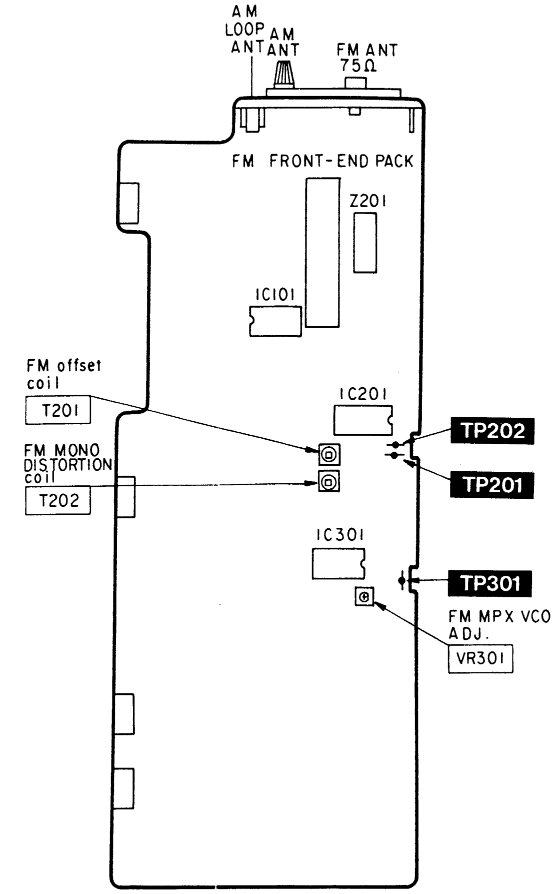
ıLYSER

ENCY
ER

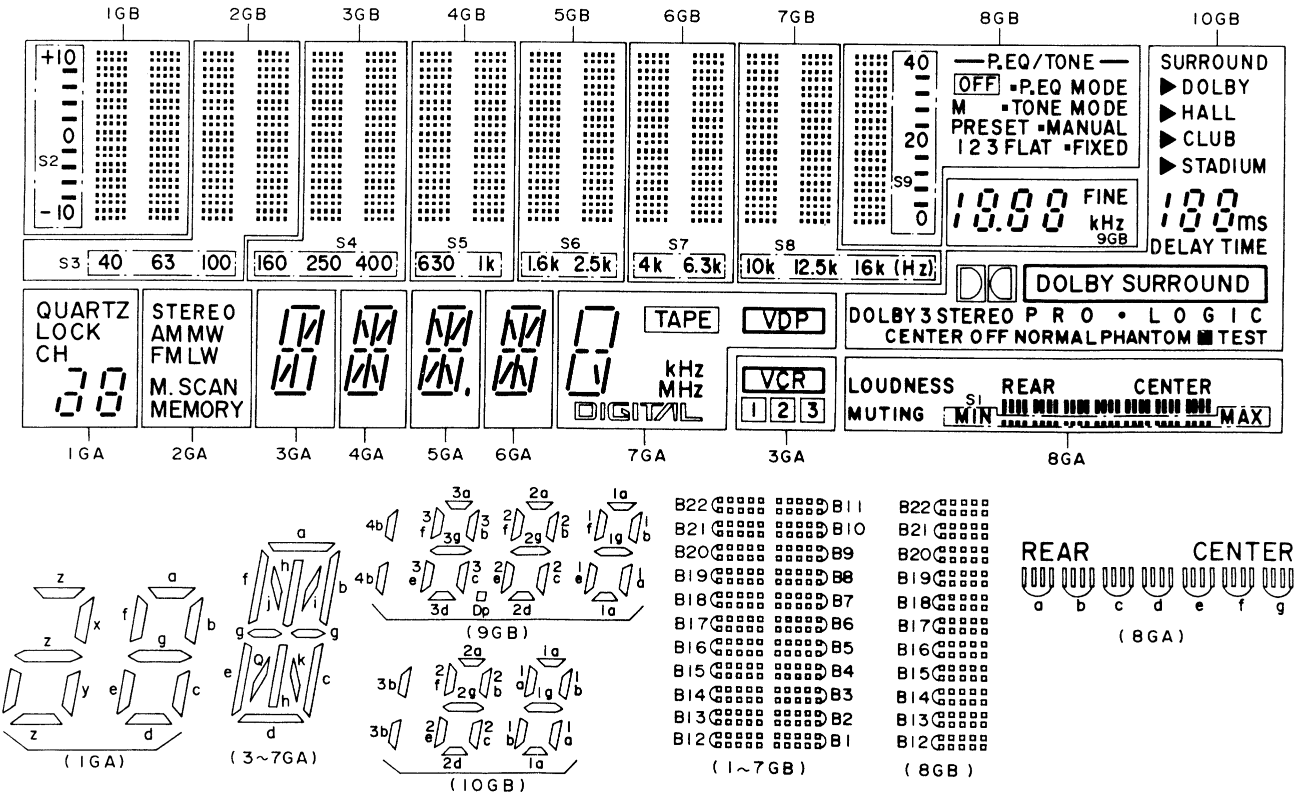
F position
position
ighting)

•ADJUSTMENT POINTS

Note: For Z202 (AM-IFT), and Z201 (AM ANT and OSC coil), they are supplied as adjusted parts. So, do not turn the cores of the parts.
It is not necessary to adjust the AM circuit.


AM LOOP ANT
AM ANT
FM ANT 75Ω
FM FRONT-END PACK
Z201
IC101
IC201
FM offset coil
T201
FM MONO DISTORTION coil
T202
TP202
TP201
IC301
TP301
FM MPX VCO ADJ.
VR301

■ DESCRIPTION OF FL PANEL [FL901 (RSL0089-F)]


1GB
2GB
3GB
4GB
5GB
6GB
7GB
8GB
10GB
+10
0
S2
-10
S3 40 63 100
S4 160 250 400
S5 630 1k
S6 1.6k 2.5k
S7 4k 6.3k
S8 10k 12.5k 16k (Hz)
40
20
S9
0
—P.EQ/TONE—
OFF •P.EQ MODE
M •TONE MODE
PRESET •MANUAL
1 2 3 FLAT •FIXED
FINE
kHz
9GB
SURROUND
▶DOLBY
▶HALL
▶CLUB
▶STADIUM
ms
DELAY TIME
DOLBY SURROUND
QUARTZ LOCK
CH
STEREO
AM MW
FM LW
M.SCAN
MEMORY
TAPE
VDP
kHz
MHz
DIGITAL
VCR
1 2 3
DOLBY 3 STEREO P R O • L O G I C
CENTER OFF NORMAL PHANTOM ■ TEST
LOUDNESS
MUTING
S1
REAR
CENTER
MIN
MAX
1GA
2GA
3GA
4GA
5GA
6GA
7GA
3GA
8GA
(1GA)
(3~7GA)
(9GB)
(10GB)
(1~7GB)
(8GB)
REAR
CENTER
a b c d e f g
(8GA)
B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22

•PIN CONNECTION

Pin No.	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	P17B	P16B	P15B	P14B	P13B	P12B	P11B	P10B	P9B	P8B	P7B	P6B	P5B	P4B	P3B	P2B	P1B	1GB	2GB	3GB	4GB	5GB	6GB	7GB	8GB	9GB	10GB	NP	NP	F1	F1	F1

Pin No.	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
Connection	F2	F2	F2	NP	1GA	2GA	3GA	4GA	5GA	6GA	7GA	8GA	P13A	P12A	P11A	P10A	P9A	P8A	P7A	P6A	P5A	P4A	P3A	P2A	P1A	P23B	P22B	P21B	P20B	P19B	P18B

Notes:
1) F1, F2 .... Filament 2) 1G~6G............ Grid 3) NP............No Pin 4) NC............No Connection

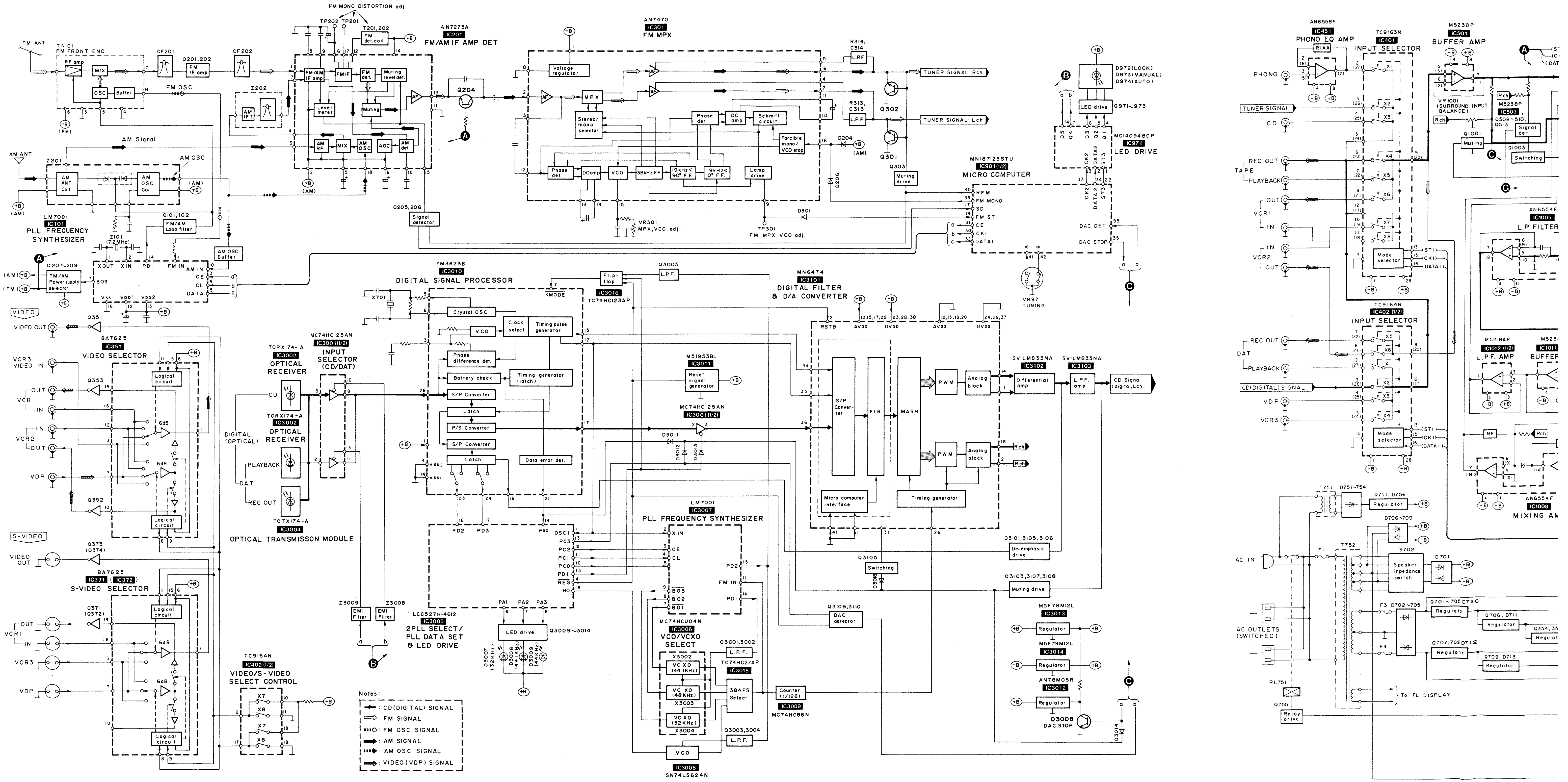
•ANODE CONNECTION (Table A)

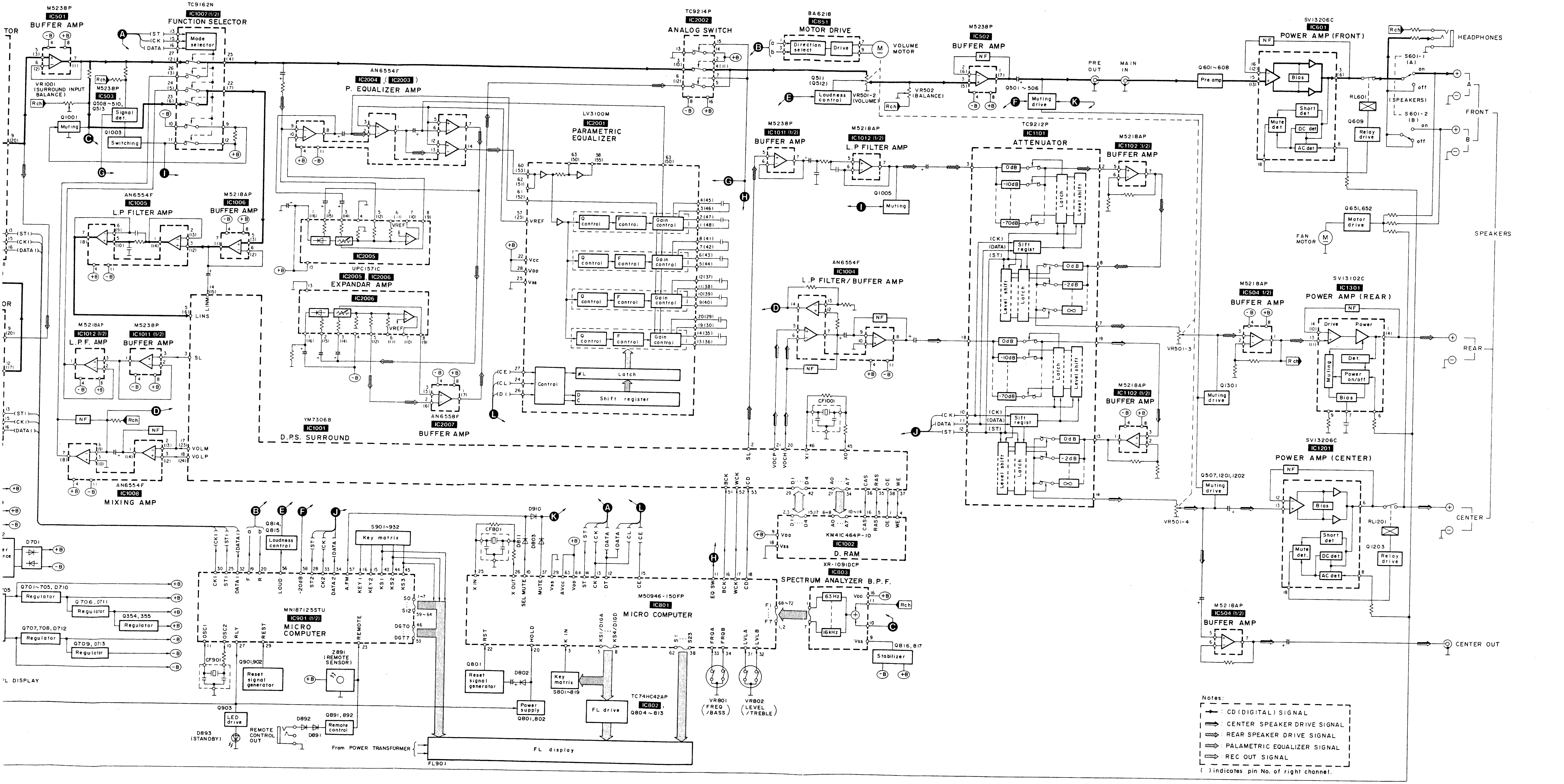
	1GA	2GA	3GA	4GA	5GA	6GA	7GA	8GA
P1A	a	——	a	a	a	a	a	S1
P2A	x	——	i, Q	j	j	j	VDP	a
P3A	y	AM	h	h	h	h	TAPE	b
P4A	z	MW	1	i	i	i	DIGITAL	c
P5A	f	FM	f	f	f	f	f	d
P6A	b	LW	b	b	b	b	b	e
P7A	g	——	g	g	g	g	g	f
P8A	e	——	e	e	e	e	e	g
P9A	c	M.SCAN	c	c	c	c	c	MUTING
P10A	w	MEMORY	2	Q	Q	Q	kHz	LOUDNESS
P11A	d	——	d	d	d	d	d	REAR
P12A	QUARTZ LOCK	——	VCR	k	k	k	k	CENTER
P13A	CH	STEREO	3	——	■	——	MHz	——

•ANODE CONNECTION (Table B)

	1GB	2GB	3GB	4GB	5GB	6GB	7GB	8GB	9GB	10GB
P1B	S2	S3	S4	S5	S6	S7	S8	S9 —P.EQ/TONE—	Hz	SURROUND DOLBY HALL CLUB STADIUM
P2B	B1	B1	B1	B1	B1	B1	B1	M	Dp k	DOLBY SURROUND PRO • LOGIC
P3B	B2	B2	B2	B2	B2	B2	B2	PRESET	FINE	DOLBY 3 STEREO
P4B	B3	B3	B3	B3	B3	B3	B3	■ FIXED	1a	PHANTOM
P5B	B4	B4	B4	B4	B4	B4	B4	■ MANUAL	1b	NORMAL
P6B	B5	B5	B5	B5	B5	B5	B5	3	1e	CENTER OFF
P7B	B6	B6	B6	B6	B6	B6	B6	2	1f	■ TEST
P8B	B7	B7	B7	B7	B7	B7	B7	1	1g	ms DELAY TIME
P9B	B8	B8	B8	B8	B8	B8	B8	FLAT	2c	1b
P10B	B9	B9	B9	B9	B9	B9	B9	■ P.EQ MODE	2b	1a
P11B	B10	B10	B10	B10	B10	B10	B10	■ TONE MODE	2d	1g
P12B	B11	B11	B11	B11	B11	B11	B11	OFF	2g	2c
P13B	B12	B12	B12	B12	B12	B12	B12	B12	2a	2b
P14B	B13	B13	B13	B13	B13	B13	B13	B13	2e	2d
P15B	B14	B14	B14	B14	B14	B14	B14	B14	2f	2g
P16B	B15	B15	B15	B15	B15	B15	B15	B15	3c	2a
P17B	B16	B16	B16	B16	B16	B16	B16	B16	3b	2e
P18B	B17	B17	B17	B17	B17	B17	B17	B17	3d	2f
P19B	B18	B18	B18	B18	B18	B18	B18	B18	3g	3b
P20B	B19	B19	B19	B19	B19	B19	B19	B19	3a	▶ STADIUM
P21B	B20	B20	B20	B20	B20	B20	B20	B20	3e	▶ CLUB
P22B	B21	B21	B21	B21	B21	B21	B21	B21	3f	▶ HALL
P23B	B22	B22	B22	B22	B22	B22	B22	B22	4b	▶ DOLBY

■ BLOCK DIAGRAM


FM ANT
TN101
FM FRONT END
RF amp
MIX
OSC
Buffer
CF201
Q201,202
FM IF amp
CF202
FM OSC
Z202
AM IFT
FM MONO DISTORTION adj.
TP202 TP201
T201,202
FM det.coil
AN7273A
IC201
FM/AM IF AMP DET
FM/AM IF amp
FMIF
FM det.
Muting level det.
Level meter
Muting
AM RF
MIX
AM OSC
AGC
AM det.
Q204
Q205,206
Signal detector
AM ANT
AM Signal
AM OSC
Z201
AM ANT Coil
AM OSC Coil
LM7001
IC101
PLL FREQUENCY SYNTHESIZER
Z101 (7.2MHz)
Q101,102
FM/AM Loop filter
AM OSC Buffer
Q207~209
FM/AM Power supply selector
XOUT XIN PDI FM IN AM IN
CE CL DATA
AN7470
IC301
FM MPX
Voltage regulator
MPX
Stereo/mono selector
Phase det.
DC amp
Schmitt circuit
Forcible mono/VCO stop
Phase det.
DCamp
VCO
38kHz.F.F
19kHz < 90° F.F.
19kHz < 0° F.F.
Lamp drive
VR301 MPX, VCO adj.
TP301 FM MPX VCO adj.
R314, C314
L.P.F
R313, C313
Q302
Q301
Q303
Muting drive
TUNER SIGNAL Rch
TUNER SIGNAL Lch
D204
D206
D301
D972(LOCK)
D973(MANUAL)
D974(AUTO)
LED drive
Q971~973
MC14094BCP
IC971
LED DRIVE
MN187125STU
IC901(1/2)
MICRO COMPUTER
RFM
FM MONO
SD
FM ST
CE
CKI
DATAI
DAC DET
DAC STOP
VR971 TUNING
VIDEO
VIDEO OUT
Q351
BA7625
IC351
VIDEO SELECTOR
VCR3 VIDEO IN
VCR1 OUT IN
VCR2 IN OUT
VDP
Q353
Q352
Logical circuit
6dB
S-VIDEO
VIDEO OUT
Q373 (Q374)
BA7625
IC371 (IC372)
S-VIDEO SELECTOR
Q371 (Q372)
TC9164N
IC402 (1/2)
VIDEO/S-VIDEO SELECT CONTROL
X7 X8
TORX174-A
IC3002
OPTICAL RECEIVER
CD
DIGITAL (OPTICAL)
TORX174-A
IC3003
OPTICAL RECEIVER
PLAYBACK
DAT
REC OUT
TOTX174-A
IC3004
OPTICAL TRANSMISSON MODULE
MC74HC125AN
IC3001(1/2)
INPUT SELECTOR (CD/DAT)
YM3623B
IC3010
DIGITAL SIGNAL PROCESSOR
X701
Crystal OSC
VCO
Clock select
Timing pulse generator
Phase difference det.
Battery check
Timing generator (latch)
S/P Converter
Latch
P/S Converter
S/P Converter
Latch
Data error det.
KMODE
Flip-flop
IC3016
TC74HC123AP
Q3005
L.P.F
LC6527H-4612
IC3005
2PLL SELECT/ PLL DATA SET & LED DRIVE
PD2 PD3 P00
OSC1 PC3 PC2 PC1 PC0 PD1 RES HO
PA1 PA2 PA3
LED drive
Q3009~3014
D3007 (32KHz)
D3008 (44.1KHz)
D3009 (48KHz)
Z3009 Z3008
EMI Filter
M51953BL
IC3011
Reset signal generator
MC74HC125AN
IC3001(1/2)
D3011 D3012 D3013
LM7001
IC3007
PLL FREQUENCY SYNTHESIZER
X IN CE CL DATA
PD2 FM IN PD1
B03 B02 B01
MC74HCU04N
IC3006
VCO/VCXO SELECT
X3002 VC XO (44.1KHz)
VC XO (48KHz) X3003
VC XO (32KHz) X3004
Q3001,3002 L.P.F
TC74HC2/AP
IC3015
384FS Select
Counter (1/128)
IC3009
MC74HC86N
Q3003,3004 L.P.F
VCO
IC3008
SN74LS624N
MN6474
IC3101
DIGITAL FILTER & D/A CONVERTER
RSTB AVDD DVDD AVSS DVSS
S/P Converter
FIR
MASH
PWM
Analog block
Micro computer interface
Timing generator
SVILM833NA
IC3102
Differential amp
SVILM833NA
IC3103
L.P.F. amp
CD Signal (digital,Lch)
Rch
Q3101,3105,3106
De-emphasis drive
Q3105
Switching
Q3103,3107,3108
Muting drive
Q3109,3110
DAC detector
M5F78M12L
IC3013
Regulator
M5F79M12L
IC3014
Regulator
AN78M05R
IC3012
Regulator
Q3008
DAC STOP
D3014
Notes:
CD(DIGITAL) SIGNAL
FM SIGNAL
FM OSC SIGNAL
AM SIGNAL
AM OSC SIGNAL
VIDEO(VDP) SIGNAL
AN6558F
IC451
PHONO EQ AMP
RIAA
PHONO
TC9163N
IC401
INPUT SELECTOR
X1 X2 X3 X4 X5 X6 X7 X8
Mode selector
TUNER SIGNAL
CD
TAPE REC OUT PLAYBACK
VCR1 OUT IN
VCR2 IN OUT
M5238P
IC501
BUFFER AMP
VR1001 (SURROUND INPUT BALANCE)
M5238P
IC503
Q508~510, Q513
Signal det.
Q1001
Muting
Q1003
Switching
AN6554F
IC1005
L.P FILTER
TC9164N
IC402 (1/2)
INPUT SELECTOR
DAT REC OUT PLAYBACK
CD(DIGITAL) SIGNAL
VDP
VCR3
M5218AP
IC1012 (1/2)
L.P.F. AMP
IC1011
BUFFER
NF
AN6554F
IC1008
MIXING AM
T751 D751~754
Q751, D756 Regulator
D706~709
S702
Speaker inpedance switch
D701
AC IN
F1
T752
F3 D702~705
Q701~705,D710 Regulator
Q706, D711 Regulator
Q354,35
AC OUTLETS (SWITCHED)
F4
Q707,708,D712 Regulator
Q709, D713 Regulator
RL751
Q755
Relay drive
To FL DISPLAY


M5238P IC501 BUFFER AMP
TC9162N IC1007 (1/2) FUNCTION SELECTOR
Mode selector
VR1001 (SURROUND INPUT BALANCE)
M5238P IC503
Q508~510, Q513
Q1001 Muting
Q1003 Switching
Signal det.
AN6554F IC2004 (IC2003) P. EQUALIZER AMP
TC9214P IC2002 ANALOG SWITCH
BA6218 IC851 MOTOR DRIVE
Direction select
Drive
VOLUME MOTOR
M5238P IC502 BUFFER AMP
PRE OUT
MAIN IN
Q601~608 Pre amp
SVI3206C IC601 POWER AMP (FRONT)
Bias
Short det
Mute det
DC det
AC det
HEADPHONES
S601-1 (A)
S601-2 (B)
(SPEAKERS)
RL601
Q609 Relay drive
FRONT
SPEAKERS
Q511 (Q512)
Loudness control
VR501-2 (VOLUME)
VR502 (BALANCE)
Q501~506 Muting drive
LV3100M IC2001 PARAMETRIC EQUALIZER
Q control
F control
Gain control
Control
Latch
Shift register
UPC1571C IC2005 IC2006 EXPANDAR AMP
AN6558F IC2007 BUFFER AMP
YM7306B IC1001 D.P.S. SURROUND
AN6554F IC1005 L.P FILTER AMP
M5218AP IC1006 BUFFER AMP
M5218AP IC1012 (1/2) L.P.F. AMP
M5238P IC1011 (1/2) BUFFER AMP
AN6554F IC1008 MIXING AMP
M5238P IC1011 (1/2) BUFFER AMP
M5218AP IC1012 (1/2) L.P FILTER AMP
Q1005 Muting
AN6554F IC1004 L.P FILTER/BUFFER AMP
TC9212P IC1101 ATTENUATOR
0dB -10dB -70dB -2dB ∞
Sift regist
Level shift
Latch
M5218AP IC1102 (1/2) BUFFER AMP
CF1001
KM41C464P-10 IC1002 D.RAM
XR-1091DCP IC803 SPECTRUM ANALYZER B.P.F.
63Hz 16kHz
Q816, 817 Stabilizer
M50946-150FP IC801 MICRO COMPUTER
MN1871255TU IC901 (1/2) MICRO COMPUTER
S901~932 Key matrix
Q814, Q815 Loudness control
D910 D811 D803 CF801
Q801 Reset signal generator
D802
Q801, 802 Power supply
Key matrix S801~819
TC74HC42AP IC802, Q804~813 FL drive
VR801 (FREQ/BASS)
VR802 (LEVEL/TREBLE)
Q901, 902 Reset signal generator
CF901
Z891 (REMOTE SENSOR)
Q903 LED drive
D893 (STANDBY)
REMOTE CONTROL OUT
D892 D891
Q891, 892 Remote control
From POWER TRANSFORMER
FL display
FL901
Q651, 652 Motor drive
FAN MOTOR
M5218AP IC504 (1/2) BUFFER AMP
SVI3102C IC1301 POWER AMP (REAR)
Drive Power Det. Muting Power on/off Bias
Q1301 Muting drive
VR501-3
REAR
SVI3206C IC1201 POWER AMP (CENTER)
Q507, 1201, 1202 Muting drive
RL1201
Q1203 Relay drive
VR501-4
CENTER
M5218AP IC504 (1/2) BUFFER AMP
CENTER OUT
D701
Q701~705, D710 Regulator
Q706, D711 Regulator
Q354, 355 Regulator
Q707, 708, D712 Regulator
Q709, D713 Regulator
FL DISPLAY

Notes:
- ⟵ : CD (DIGITAL) SIGNAL
- ⟹ : CENTER SPEAKER DRIVE SIGNAL
- ⟹ : REAR SPEAKER DRIVE SIGNAL
- ⟹ : PALAMETRIC EQUALIZER SIGNAL
- ⟹ : REC OUT SIGNAL

( ) indicates pin No. of right channel.

■ SCHEMATIC DIAGRAM (Parts list on pages 68~77)

(This schematic diagram may be modified at any time with the development of new technology.)

Notes:

●S601-1, 602-2 : Speaker selectors (SPEAKERS) switches. (S601-1: A, S601-2: B)
●S702 : Speaker impedance selector switch in "8Ω" position. (4Ω⟷8Ω)
●S801 : Display mode (-DISPLAY MODE-DEMO) switch.
●S802~805 : Parametric EQ band select switches.
(S802: EQ1, S803: EQ2, S804: EQ3, S805: EQ4)
●S806 : Parametric EQ system ON/OFF (P.EQ SYS ON/OFF) switch.
●S807 : Fine mode (FINE) switch.
●S808 : Slope changeover [SLOPE (Q)] switch.
●S809 : Parametric EQ/tone mode (P.EQ/TONE) switch.
●S810 : Parametric EQ system memory (MEMORY) switch.
●S811 : Fixed preset (FIXED PRESET) switch.
●S812~814 : Equalization preset (MANUAL PRESET) switches.
(S812: Manual 1, S813: Manual 2, S814: Manual 3)
●S815 : Surround mode (SURROUND MODE) switch.
●S816 : Delay time adjustment (DELAY TIME) switch.
●S817 : Center mode (CENTER MODE) switch.
●S818 : Test signal transmission (TEST) switch.
●S819 : 3-Stereo (3-STEREO) switch.
●S901~910 : Preset-tuning (30 CHANNEL RANDOM PRESET TUNING) switches.
(S901: 1, S902: 2, S903: 3, S904: 4, S905: 5)
(S906: 6, S907: 7, S908: 8, S909: 9, S910: 0)
●S911 : Surround ON/OFF (SURROUND) switch.
●S912, 913 : Center speaker level adjustment (CENTER LEVEL) switches.
(S912: DOWN, S913: UP)
●S914, 915 : Rear speaker level adjustment (REAR LEVEL) switches.
(S914: DOWN, S915: UP)
●S916 : Input selector (PHONO) switch.
●S917 : Input selector (TUNER) switch.
●S918 : Tape-monitor (TAPE MONITOR) switch.
●S919 : Input selector (VDP) switch.
●S920 : Input selector (VCR3) switch.
●S921 : Input selector (VCR2) switch.
●S922 : Input selector (VCR1) switch.
●S923 : Input selector (CD) switch.
●S924 : Input selector (DAT) switch.
●S925 : Loudness (LOUDNESS) switch.
●S926 : Tuning-mode selector (TUNING MODE) switch.
●S927 : Band selector (FM) switch.
●S928 : Band selector (AM) switch.
●S929 : FM mode selector (FM MODE) switch.
●S930 : Memory scan (MEMORY SCAN) switch.
●S931 : Memory (MEMORY) switch.
●S932 : Power (POWER/STANDBY/ON) switch.

● □□□⇨ : FM OSC
■■■➡ : AM OSC
⇨ : Rec out singal (L ch)
➡ : Center S.P. drive singal
▨ : CD (Digital) signal
⇨ : FM signal
➡ : AM signal
▬▬ : Positive voltage lines
▬ ▬ ▬ : Negative voltage lines
⇨ : Rear S.P. drive signal (L ch)
⇨ : P. Equalizer signal
⇨ : S-VIDEO (Color/VDP) signal
⇨ : S-VIDEO (luminance/VDP) signal
➡ : VIDEO (VDP) signal

●Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts. Indicated voltage values are standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on internal impedance of the DC circuit tester.

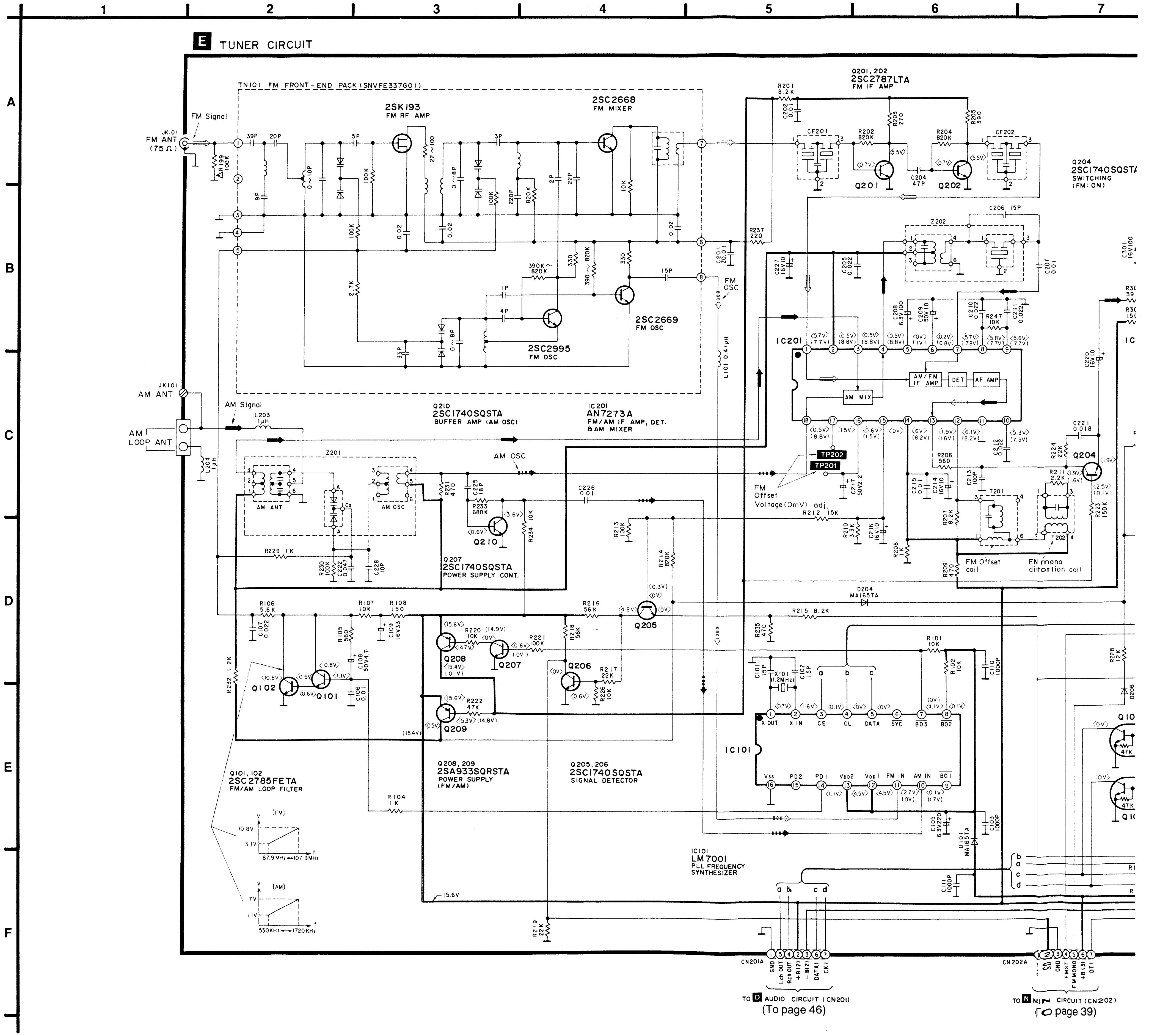
●All voltage values shown in circuitry are DC voltage in FM signal (Stereo signal) reception mode.
∗Figures in ( ) Stand for DC-voltage in AM signal reception mode. ∗No mark: CD (DIGITAL) voltage
∗Figures in < > stand for DC-voltage in FM signal reception mode.

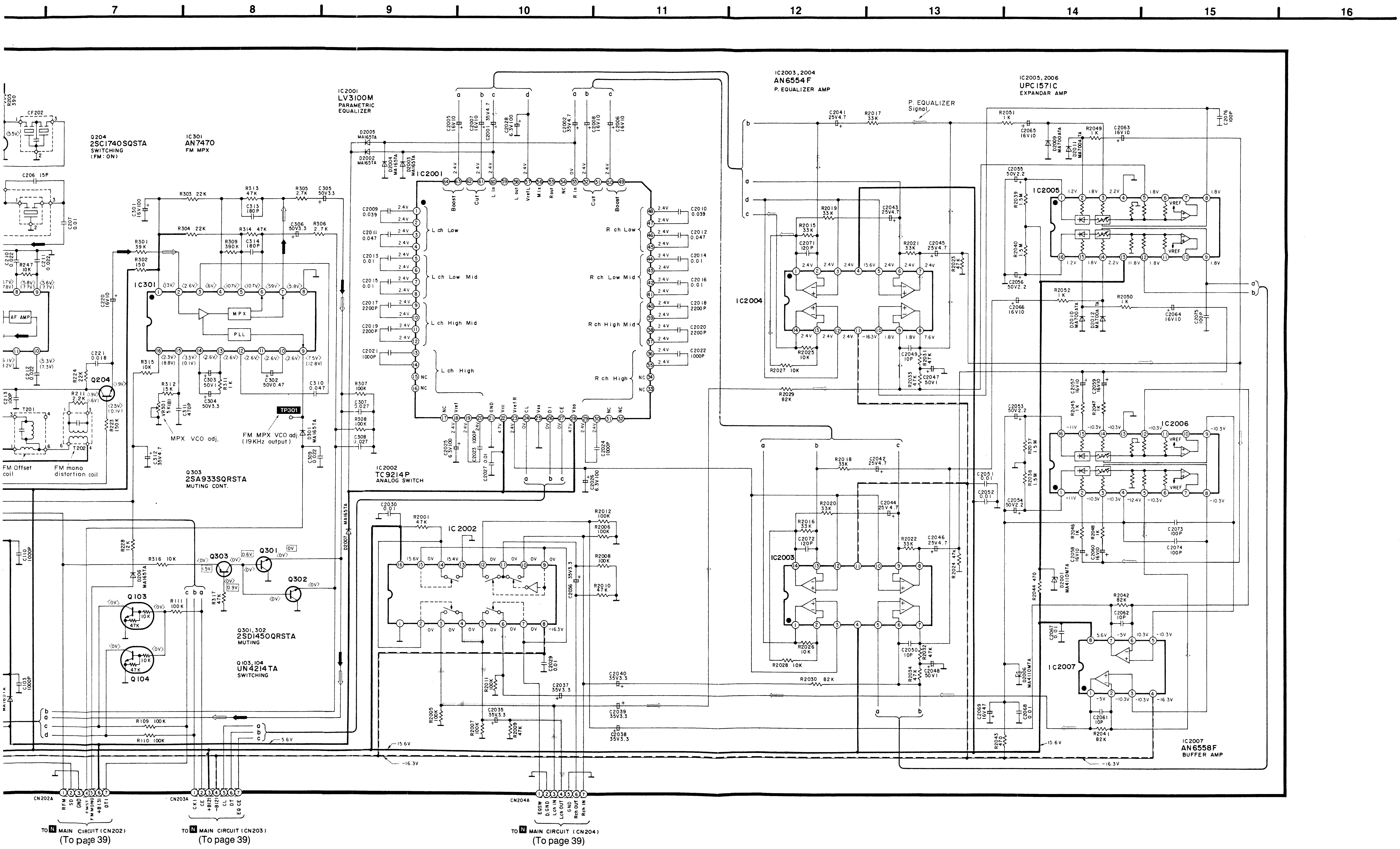
***Caution!**
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
*Cover the parts boxes made of plastics with alminum foil.
*Ground the soldering iron.
*Put a conductive mat on the work table.
*Do not touch the legs of IC or LSI with the fingers directly.

●The supply part number is described alone in the replacement parts list

Ref. No.	Production Part No.	Supply Part No.
IC 301	AN7470	SVIUPC1161C3
IC501~503 IC1010 IC1011	M5238P	M5238P-1

●TUNER CIRCUIT


1
2
3
4
5
6
7
A
B
C
D
E
F
E TUNER CIRCUIT
TN101 FM FRONT-END PACK (SNVFE537G01)
JK101 FM ANT (75Ω)
FM Signal
2SK193 FM RF AMP
2SC2668 FM MIXER
2SC2669 FM OSC
2SC2995 FM OSC
Q201, 202 2SC2787LTA FM IF AMP
CF201
CF202
Q201
Q202
Q204 2SC1740SQSTA SWITCHING (FM: ON)
Z202
IC201
AM/FM IF AMP
DET
AF AMP
AM MIX
TP202
TP201
FM Offset Voltage (0mV) adj.
FM Offset coil
FM mono distortion coil
T201
T202
L101 0.47μH
FM OSC
JK101 AM ANT
AM LOOP ANT
AM Signal
L203 1μH
L204 1μH
Z201
AM ANT
AM OSC
Q210 2SC1740SQSTA BUFFER AMP (AM OSC)
IC201 AN7273A FM/AM IF AMP, DET. & AM MIXER
Q207 2SC1740SQSTA POWER SUPPLY CONT.
Q205
Q206
Q207
Q208
Q209
Q101
Q102
D204 MA165TA
IC101
X101 7.2MHz
X OUT
X IN
CE
CL
DATA
SYC
BO3
BO2
Vss
PD2
PD1
VDD2
VDD1
FM IN
AM IN
BO1
D101 MA165TA
Q101, 102 2SC2785FETA FM/AM LOOP FILTER
(FM)
10.8V
3.1V
87.9MHz→107.9MHz
(AM)
7V
1.1V
530KHz→1720KHz
Q208, 209 2SA933SQRSTA POWER SUPPLY (FM/AM)
Q205, 206 2SC1740SQSTA SIGNAL DETECTOR
IC101 LM7001 PLL FREQUENCY SYNTHESIZER
CN201A
GND
Lch OUT
Rch OUT
+B(2)
-B(1)
DATA1
CK1
CN202A
GND
FMST
FM MONO
+B(3)
DT1
TO D AUDIO CIRCUIT (CN201)
(To page 46)
TO N NIN CIRCUIT (CN202)
(☞ page 39)

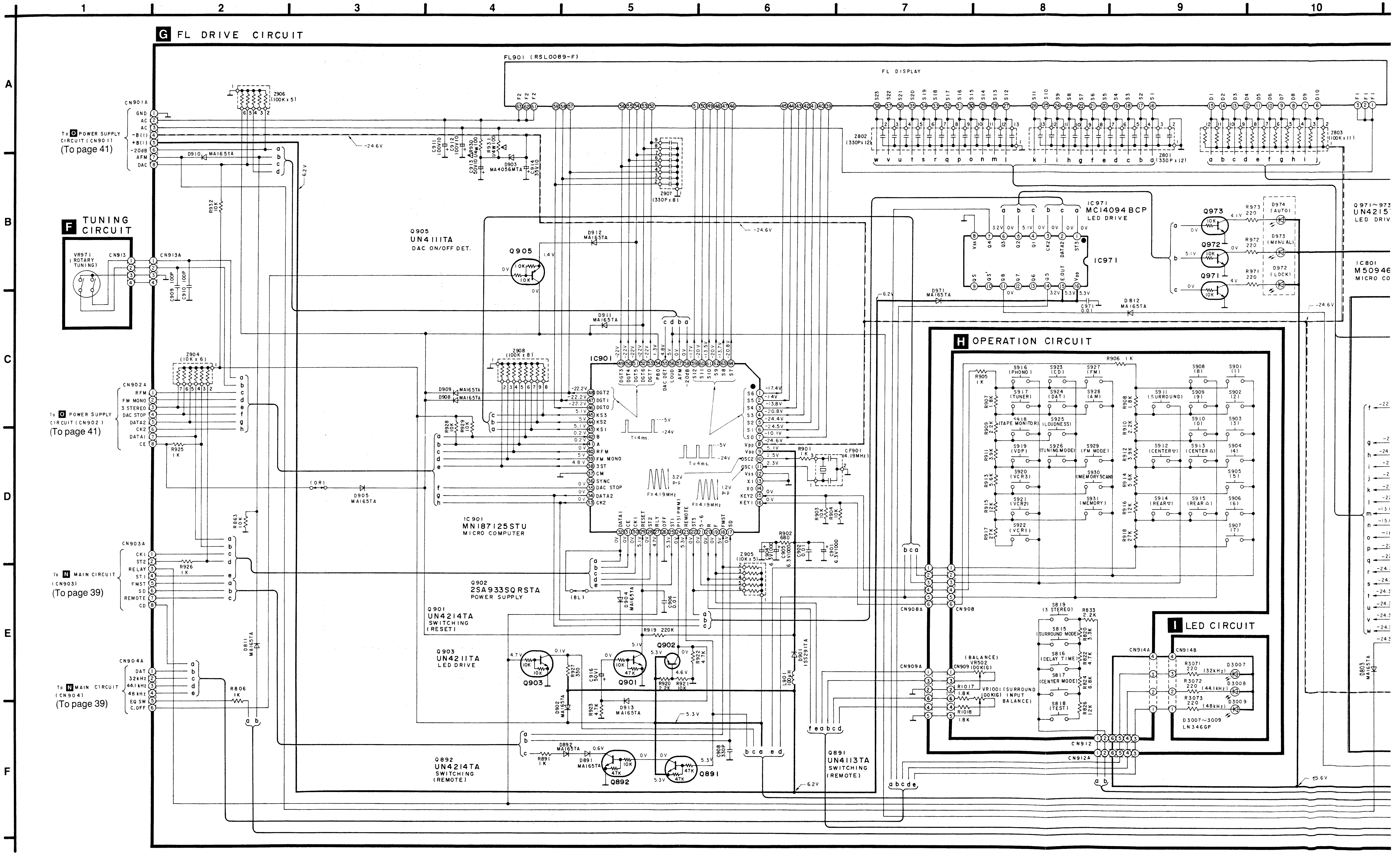

7
8
9
10
11
12
13
14
15
16
CF202
Q204
2SC1740SQSTA
SWITCHING
(FM: ON)
IC301
AN7470
FM MPX
IC301
MPX
PLL
MPX VCO adj.
TP301
FM MPX VCO adj.
(19KHz output)
FM Offset coil
FM mono distortion coil
T201
T202
AF AMP
Q303
2SA933SQRSTA
MUTING CONT.
Q301
Q302
Q301, 302
2SD1450QRSTA
MUTING
Q103
Q104
Q103, 104
UN4214TA
SWITCHING
IC2001
LV3100M
PARAMETRIC EQUALIZER
L ch Low
L ch Low Mid
L ch High Mid
L ch High
R ch Low
R ch Low Mid
R ch High Mid
R ch High
Boost
Cut
L in
L out
Vref L
Mix
R out
R in
IC2002
TC9214P
ANALOG SWITCH
IC 2002
IC2003, 2004
AN6554F
P. EQUALIZER AMP
P. EQUALIZER Signal
IC2004
IC2003
IC2005, 2006
UPC1571C
EXPANDAR AMP
IC2005
IC2006
VREF
IC2007
AN6558F
BUFFER AMP
IC2007
−15.6V
−16.3V
15.6V
CN202A
RFM
SD
GND
FMST FM MONO
+B(13)
DTI
CN203A
CK1
CE
+B(12)
−B(12)
CL
DT
EQ CE
CN204A
EQSW
D.GND
Lch IN
Lch OUT
GND
Rch OUT
Rch IN

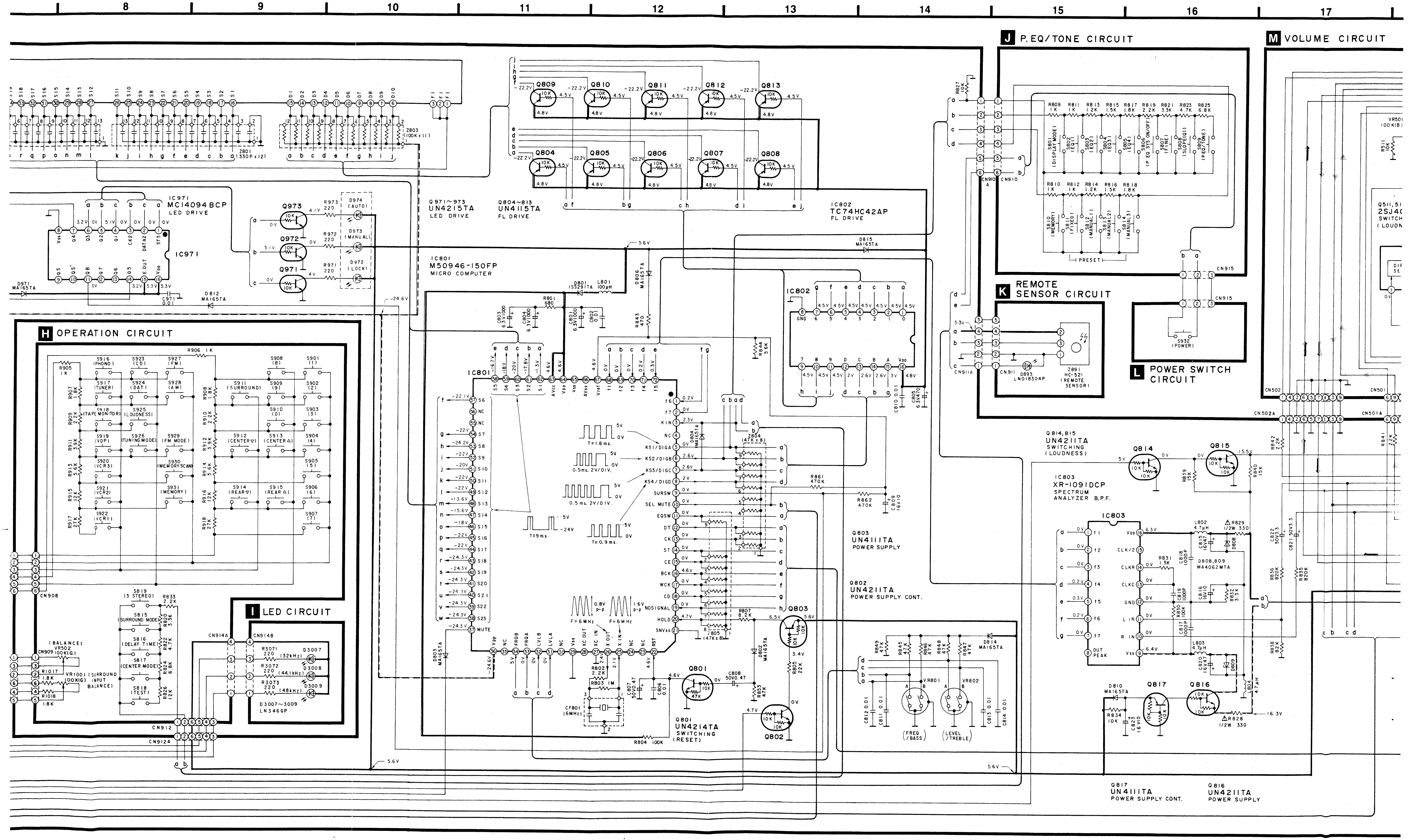
TO N MAIN CIRCUIT (CN202)
(To page 39)

TO N MAIN CIRCUIT (CN203)
(To page 39)

TO N MAIN CIRCUIT (CN204)
(To page 39)

•FL DRIVE/OPERATION CIRCUIT


G FL DRIVE CIRCUIT
FL901 (RSL0089-F)
FL DISPLAY
F TUNING CIRCUIT
VR971 (ROTARY TUNING)
CN913
CN913A
CN901A
To O POWER SUPPLY CIRCUIT (CN901)
(To page 41)
GND
AC
AC
-B(1)
+B(1)
-20dB
AFM
DAC
Z906 (100K x 5)
Z907 (330P x 8)
Z802 (330P x 12)
Z801 (330P x 12)
Z803 (100K x 11)
D910 MA165TA
D903 MA4056MTA
-24.6V
6.2V
Q905 UN4111TA DAC ON/OFF DET.
Q905
D912 MA165TA
D911 MA165TA
IC971 MC14094BCP LED DRIVE
IC971
D971 MA165TA
D812 MA165TA
C971 0.01
Q973
Q972
Q971
R973 220
R972 220
R971 220
D974 (AUTO)
D973 (MANUAL)
D972 (LOCK)
Q971~973 UN4215
LED DRIV
IC801 M50946
MICRO CO
CN902A
To O POWER SUPPLY CIRCUIT (CN902)
(To page 41)
RFM
FM MONO
3 STEREO
DAC STOP
DATA2
CK2
DATA1
CE
Z904 (10K x 6)
Z908 (100K x 8)
R925 1K
R932 10K
D909 MA165TA
D908 MA165TA
R928 10K
R929 10K
IC901
T=4ms.
T=4ms.
F=4.19MHz
F=4.19MHz
R901 1K
CF901 (4.19MHz)
D905 MA165TA
(OR)
IC901 MN187125STU MICRO COMPUTER
R863 10K
CN903A
To N MAIN CIRCUIT (CN903)
(To page 39)
CK1
ST2
RELAY
ST1
FMST
SD
REMOTE
CD
R926 1K
Q902 2SA933SQRSTA POWER SUPPLY
Q901 UN4214TA SWITCHING (RESET)
Q903 UN4211TA LED DRIVE
Z905 (10K x 5)
R902 680
R903 10K
R904 10K
C901 6.3V1000
C902 0.1
C905 6.3V1000
(BL)
D914 MA165TA
C906 0.01
R919 220K
Q903
Q901
Q902
R927 330
C916 50V1
R920 2.2K
R921 10K
R922 4.7K
R923 4.7K
D902 MA165TA
D913 MA165TA
D901 1SS291TA
L901 100μH
5.3V
D811 MA165TA
CN904A
To N MAIN CIRCUIT (CN904)
(To page 39)
DAT
32kHz
44.1kHz
48kHz
EQ SW
C.OFF
R806 1K
Q892 UN4214TA SWITCHING (REMOTE)
D892 MA165TA
R891 1K
D891 MA165TA
Q892
Q891
Q891 UN4113TA SWITCHING (REMOTE)
C908 330P
6.2V
H OPERATION CIRCUIT
R906 1K
R905 1K
S916 (PHONO)
S923 (CD)
S927 (FM)
S917 (TUNER)
S924 (DAT)
S928 (AM)
S918 (TAPE MONITOR)
S925 (LOUDNESS)
S919 (VDP)
S926 (TUNING MODE)
S929 (FM MODE)
S920 (VCR3)
S930 (MEMORY SCAN)
S921 (VCR2)
S931 (MEMORY)
S922 (VCR1)
S908 (8)
S901 (1)
S911 (SURROUND)
S909 (9)
S902 (2)
S910 (0)
S903 (3)
S912 (CENTER▽)
S913 (CENTER△)
S904 (4)
S905 (5)
S914 (REAR▽)
S915 (REAR△)
S906 (6)
S907 (7)
R907 1.8K
R909 2.2K
R911 3.9K
R913 5.6K
R915 12K
R917 27K
R908 1.8K
R910 2.2K
R912 3.9K
R914 5.6K
R916 12K
R918 27K
CN908A
CN908
CN909A
CN909
(BALANCE) VR502 (100KG)
VR1001 (SURROUND INPUT BALANCE) (100KG)
R1017 1.8K
R1018 1.8K
S819 (3 STEREO)
R833 2.2K
S815 (SURROUND MODE)
S816 (DELAY TIME)
S817 (CENTER MODE)
S818 (TEST)
R820 3.3K
R822 4.7K
R824 6.8K
R826 12K
CN912
CN912A
I LED CIRCUIT
CN914A
CN914B
R3071 220
R3072 220
R3073 220
(32kHz)
(44.1kHz)
(48kHz)
D3007
D3008
D3009
D3007~3009 LN346GP
D803 MA165TA
5.6V
-24.6V


8
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10
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12
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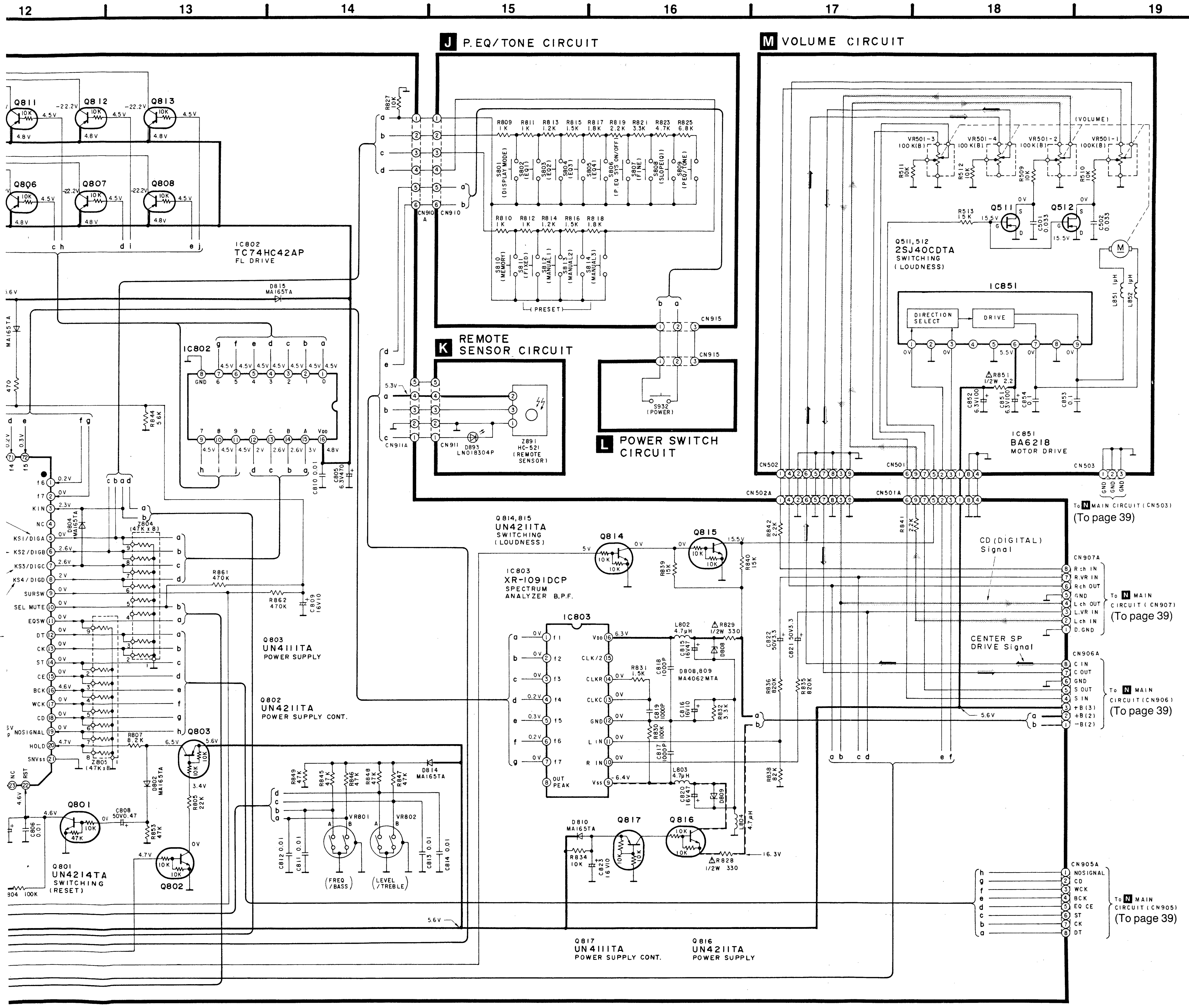
14
15
16
17
J P.EQ/TONE CIRCUIT
M VOLUME CIRCUIT
H OPERATION CIRCUIT
I LED CIRCUIT
K REMOTE SENSOR CIRCUIT
L POWER SWITCH CIRCUIT
IC971 MC14094BCP LED DRIVE
Q971~973 UN4215TA LED DRIVE
Q804~813 UN4115TA FL DRIVE
IC802 TC74HC42AP FL DRIVE
IC801 M50946-150FP MICRO COMPUTER
IC803 XR-1091DCP SPECTRUM ANALYZER B.P.F.
Q814,815 UN4211TA SWITCHING (LOUDNESS)
Q803 UN4111TA POWER SUPPLY
Q802 UN4211TA POWER SUPPLY CONT.
Q801 UN4214TA SWITCHING (RESET)
Q817 UN4111TA POWER SUPPLY CONT.
Q816 UN4211TA POWER SUPPLY
Q511,51 2SJ4 SWITCH (LOUDN
D974 (AUTO)
D973 (MANUAL)
D972 (LOCK)
D971 MA165TA
D812 MA165TA
D815 MA165TA
D806 MA165TA
D801 1SS291TA
L801 100μH
Z801 (330P x 12)
Z803 (100K x 11)
Z804 (47K x 8)
Z805 (47K x 8)
CF801 (6MHz)
S916 (PHONO)
S923 (CD)
S927 (FM)
S908 (8)
S901 (1)
S917 (TUNER)
S924 (DAT)
S928 (AM)
S911 (SURROUND)
S909 (9)
S902 (2)
S918 (TAPE MONITOR)
S925 (LOUDNESS)
S910 (0)
S903 (3)
S919 (VDP)
S926 (TUNING MODE)
S929 (FM MODE)
S912 (CENTER▽)
S913 (CENTER△)
S904 (4)
S920 (VCR3)
S930 (MEMORY SCAN)
S905 (5)
S921 (VCR2)
S931 (MEMORY)
S914 (REAR▽)
S915 (REAR△)
S906 (6)
S922 (VCR1)
S907 (7)
S819 (3 STEREO)
S815 (SURROUND MODE)
S816 (DELAY TIME)
S817 (CENTER MODE)
S818 (TEST)
(BALANCE) VR502 (100K(G))
VR1001 (SURROUND INPUT BALANCE) (100K(G))
D3007 (32kHz)
D3008 (44.1kHz)
D3009 (48kHz)
D3007~3009 LN346GP
S801 (DISPLAY MODE)
S802 (EQ1)
S803 (EQ2)
S804 (EQ3)
S805 (EQ4)
S806 (P.EQ SYS ON/OFF)
S807 (FINE)
S808 (SLOPE(Q))
S809 (P.EQ/TONE)
S810 (MEMORY)
S811 (FIXED)
S812 (MANUAL1)
S813 (MANUAL2)
S814 (MANUAL3)
(PRESET)
Z891 HC-521 (REMOTE SENSOR)
D893 LN01830 4P
S932 (POWER)
VR801 (FREQ/BASS)
VR802 (LEVEL/TREBLE)
D808,809 MA4062MTA
D810 MA165TA
D814 MA165TA
KS1/DIGA
KS2/DIGB
KS3/DIGC
KS4/DIGD
SURSW
SEL MUTE
EQSW
NOSIGNAL
HOLD
MUTE
T=1.8ms.
0.5ms. 2V/DIV.
T=9ms.
T=0.9ms.
F=6MHz
CN908
CN909
CN910
CN911
CN912
CN912A
CN914A
CN914B
CN915
CN501
CN501A
CN502
CN502A
5.6V
-24.6V
16.3V


12
13
14
15
16
17
18
19
20
21
22
J P. EQ/TONE CIRCUIT
M VOLUME CIRCUIT
K REMOTE SENSOR CIRCUIT
L POWER SWITCH CIRCUIT
Q811
Q812
Q813
Q806
Q807
Q808
IC802 TC74HC42AP FL DRIVE
D815 MA165TA
S801 (DISPLAY MODE)
S802 (EQ1)
S803 (EQ2)
S804 (EQ3)
S805 (EQ4)
S806 (P.EQ SYS ON/OFF)
S807 (FINE)
S808 (SLOPE(Q))
S809 (PEQ/TONE)
S810 (MEMORY)
S811 (FIXED)
S812 (MANUAL1)
S813 (MANUAL2)
S814 (MANUAL3)
(PRESET)
CN910
CN915
CN911
CN911A
D893 LN01830AP
Z891 HC-521 (REMOTE SENSOR)
S932 (POWER)
VR501-3 100K(B)
VR501-4 100K(B)
VR501-2 100K(B)
VR501-1 100K(B)
(VOLUME)
Q511
Q512
Q511,512 2SJ40CDTA SWITCHING (LOUDNESS)
IC851
DIRECTION SELECT
DRIVE
IC851 BA6218 MOTOR DRIVE
CN502
CN501
CN503
CN502A
CN501A
To N MAIN CIRCUIT (CN503)
(To page 39)
Q814,815 UN4211TA SWITCHING (LOUDNESS)
Q814
Q815
IC803 XR-1091DCP SPECTRUM ANALYZER B.P.F.
IC803
CD (DIGITAL) Signal
CENTER SP DRIVE Signal
CN907A
To N MAIN CIRCUIT (CN907)
(To page 39)
CN906A
To N MAIN CIRCUIT (CN906)
(To page 39)
CN905A
To N MAIN CIRCUIT (CN905)
(To page 39)
Q803 UN4111TA POWER SUPPLY
Q802 UN4211TA POWER SUPPLY CONT.
Q803
Q801
Q801 UN4214TA SWITCHING (RESET)
Q802
VR801 (FREQ/BASS)
VR802 (LEVEL/TREBLE)
D814 MA165TA
D808,809 MA4062MTA
D810 MA165TA
Q817
Q816
Q817 UN4111TA POWER SUPPLY CONT.
Q816 UN4211TA POWER SUPPLY
Z804 (47K×8)
Z805 (47K×8)
KS1/DIGA
KS2/DIGB
KS3/DIGC
KS4/DIGD
SURSW
SEL MUTE
EQSW
DT
CK
ST
CE
BCK
WCK
CD
NOSIGNAL
HOLD
SNVss

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE 4 A 125 V AND 8 A 125 V FUSES.

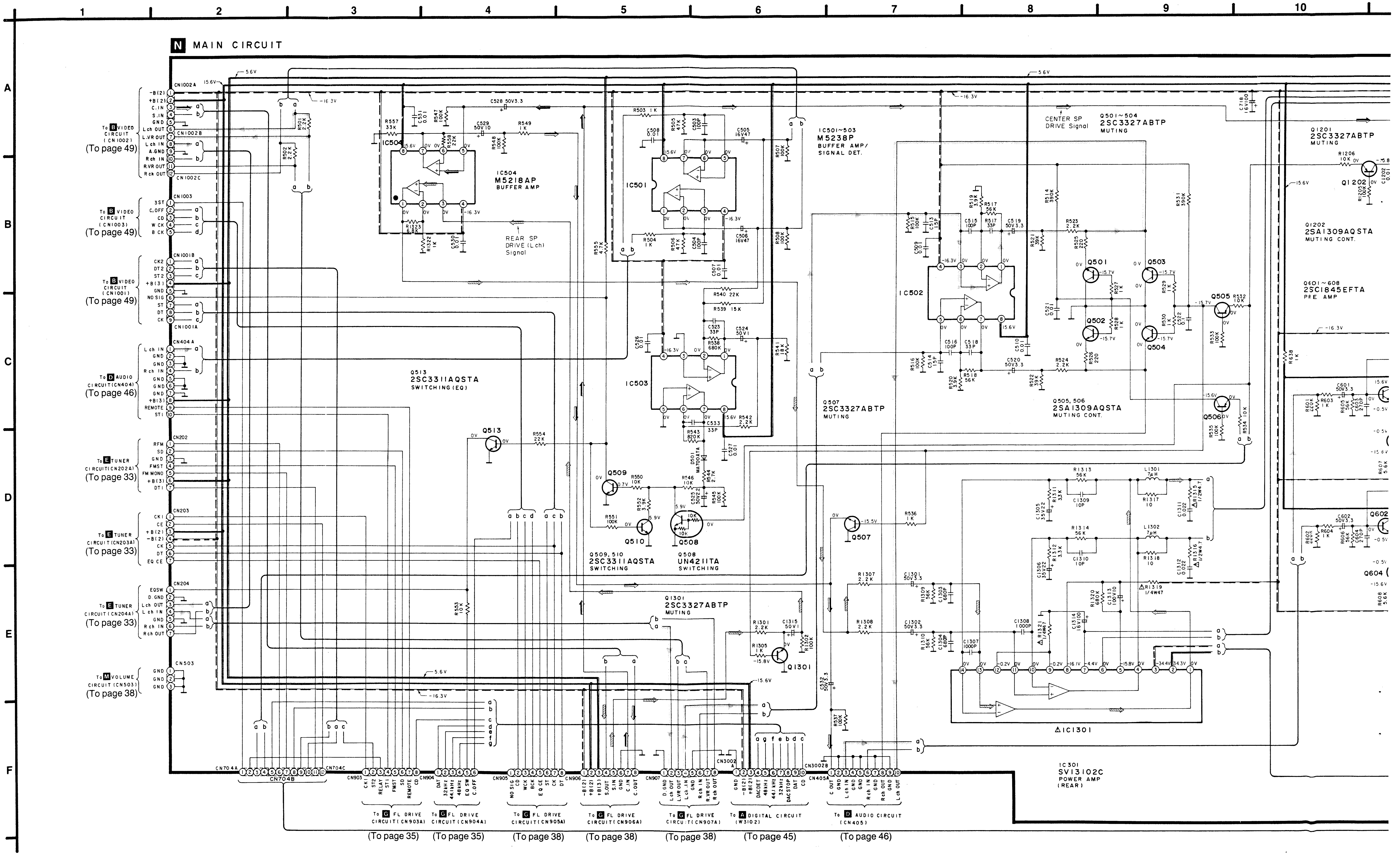
RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbole est apposé.

•MAIN/POWER SUPPLY CIRCUIT


1
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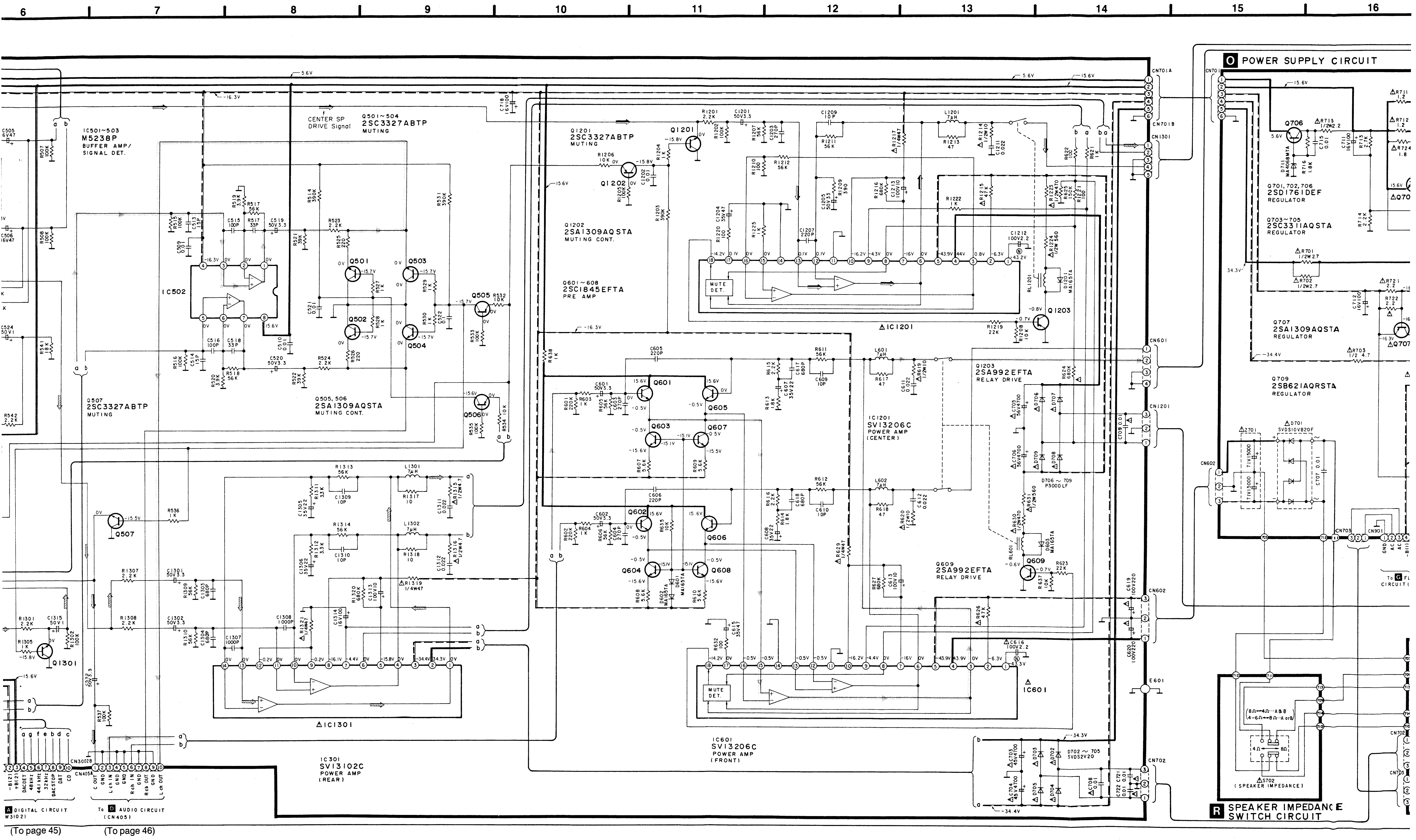
7
8
9
10
A
B
C
D
E
F
N MAIN CIRCUIT
CN1002A
CN1002B
CN1002C
To B VIDEO CIRCUIT (CN1002)
(To page 49)
To B VIDEO CIRCUIT (CN1003)
(To page 49)
To B VIDEO CIRCUIT (CN1001)
(To page 49)
To D AUDIO CIRCUIT (CN404)
(To page 46)
To E TUNER CIRCUIT (CN202A)
(To page 33)
To E TUNER CIRCUIT (CN203A)
(To page 33)
To E TUNER CIRCUIT (CN204A)
(To page 33)
To M VOLUME CIRCUIT (CN503)
(To page 38)
IC504
M5218AP
BUFFER AMP
IC501~503
M5238P
BUFFER AMP/ SIGNAL DET.
IC501
IC502
IC503
REAR SP DRIVE (Lch) Signal
CENTER SP DRIVE Signal
Q501~504
2SC3327ABTP
MUTING
Q501
Q502
Q503
Q504
Q505
Q506
Q505, 506
2SA1309AQSTA
MUTING CONT.
Q507
2SC3327ABTP
MUTING
Q513
2SC3311AQSTA
SWITCHING (EQ)
Q509
Q510
Q508
Q509, 510
2SC3311AQSTA
SWITCHING
Q508
UN4211TA
SWITCHING
Q1301
2SC3327ABTP
MUTING
Q1201
2SC3327ABTP
MUTING
Q1202
2SA1309AQSTA
MUTING CONT.
Q601~608
2SC1845EFTA
PRE AMP
Q602
Q604
ΔIC1301
IC301
SVI3102C
POWER AMP
(REAR)
5.6V
-16.3V
15.6V
CN704A
CN704B
CN704C
CN903
CN904
CN905
CN906
CN907
CN3002A
CN3002B
CN405A
To G FL DRIVE CIRCUIT (CN903A)
(To page 35)
To G FL DRIVE CIRCUIT (CN904A)
(To page 35)
To G FL DRIVE CIRCUIT (CN905A)
(To page 38)
To G FL DRIVE CIRCUIT (CN906A)
(To page 38)
To G FL DRIVE CIRCUIT (CN907A)
(To page 38)
To A DIGITAL CIRCUIT (W3102)
(To page 45)
To D AUDIO CIRCUIT (CN405)
(To page 46)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13
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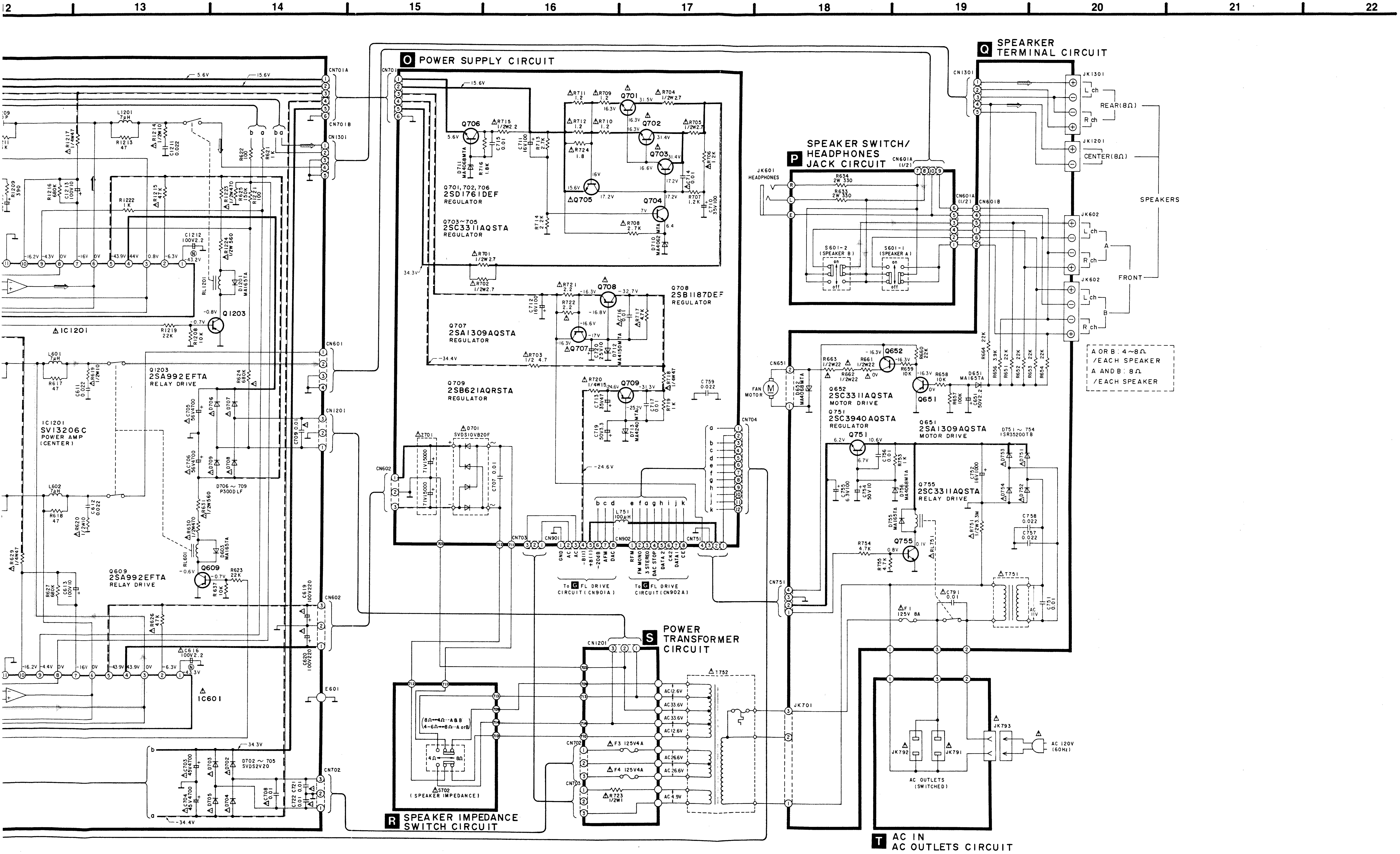
15
16
O POWER SUPPLY CIRCUIT
IC501~503
M5238P
BUFFER AMP/
SIGNAL DET.
CENTER SP
DRIVE Signal
Q501~504
2SC3327ABTP
MUTING
IC502
Q1201
2SC3327ABTP
MUTING
Q1202
2SA1309AQSTA
MUTING CONT.
Q601~608
2SC1845EFTA
PRE AMP
ΔIC1201
Q1203
2SA992EFTA
RELAY DRIVE
IC1201
SVI3206C
POWER AMP
(CENTER)
D706 ~ 709
P300D LF
Q507
2SC3327ABTP
MUTING
Q505, 506
2SA1309AQSTA
MUTING CONT.
Q609
2SA992EFTA
RELAY DRIVE
ΔIC1301
IC301
SVI3102C
POWER AMP
(REAR)
IC601
SVI3206C
POWER AMP
(FRONT)
ΔIC601
D702 ~ 705
SVDS2V20
Q701, 702, 706
2SD1761DEF
REGULATOR
Q703~705
2SC3311AQSTA
REGULATOR
Q707
2SA1309AQSTA
REGULATOR
Q709
2SB621AQRSTA
REGULATOR
ΔD701
SVDS10VB20F
ΔZ701
ΔS702
(SPEAKER IMPEDANCE)
R SPEAKER IMPEDANCE
SWITCH CIRCUIT
(8Ω→4Ω···AB B
(4~6Ω→8Ω···A or B)
CN701A
CN701B
CN1301
CN601
CN1201
CN602
CN702
CN703
CN901
E601
CN701
CN3002B
CN405A
A DIGITAL CIRCUIT
W3102)
To D AUDIO CIRCUIT
(CN405)
(To page 45)
(To page 46)
To G FL
CIRCUIT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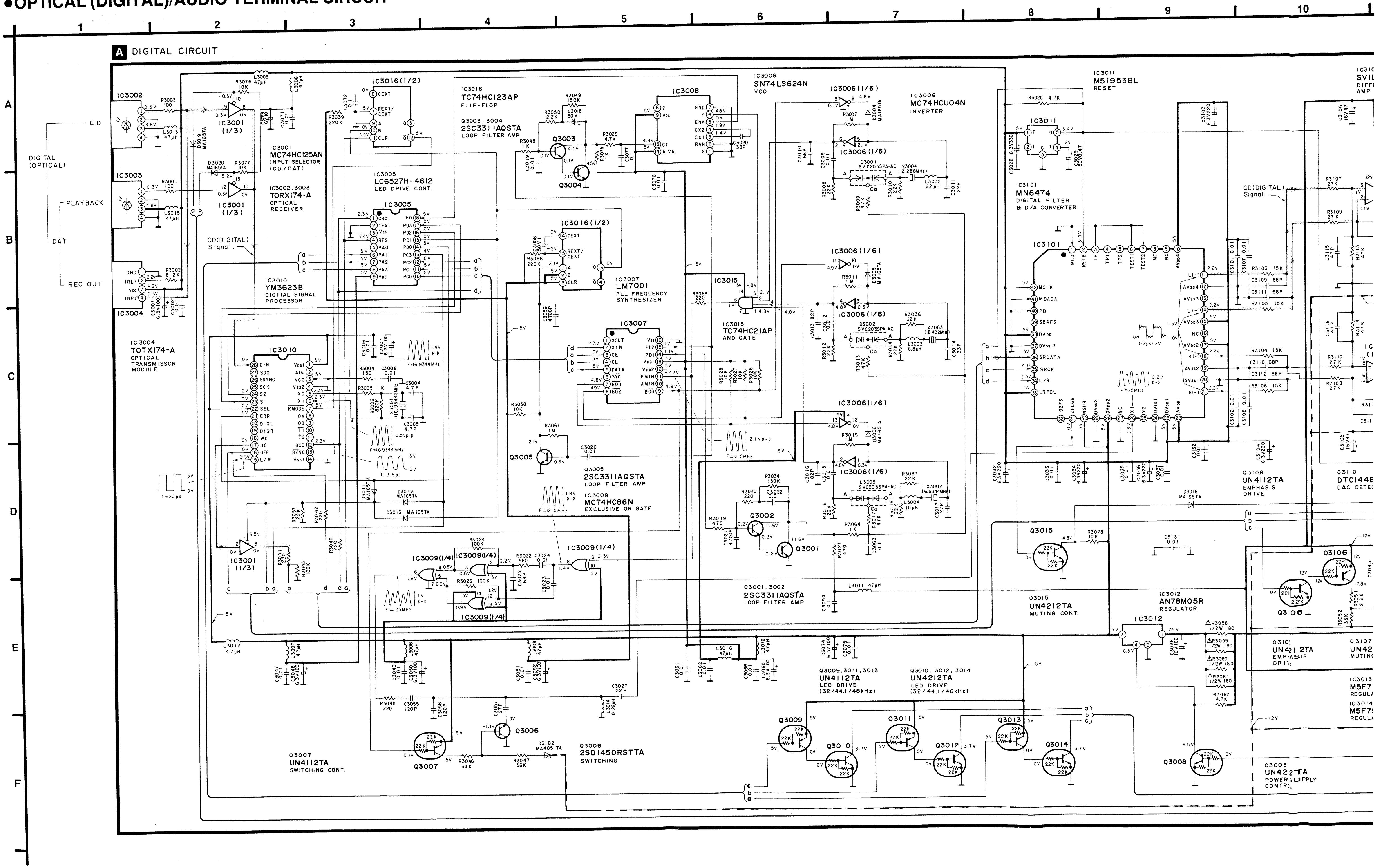
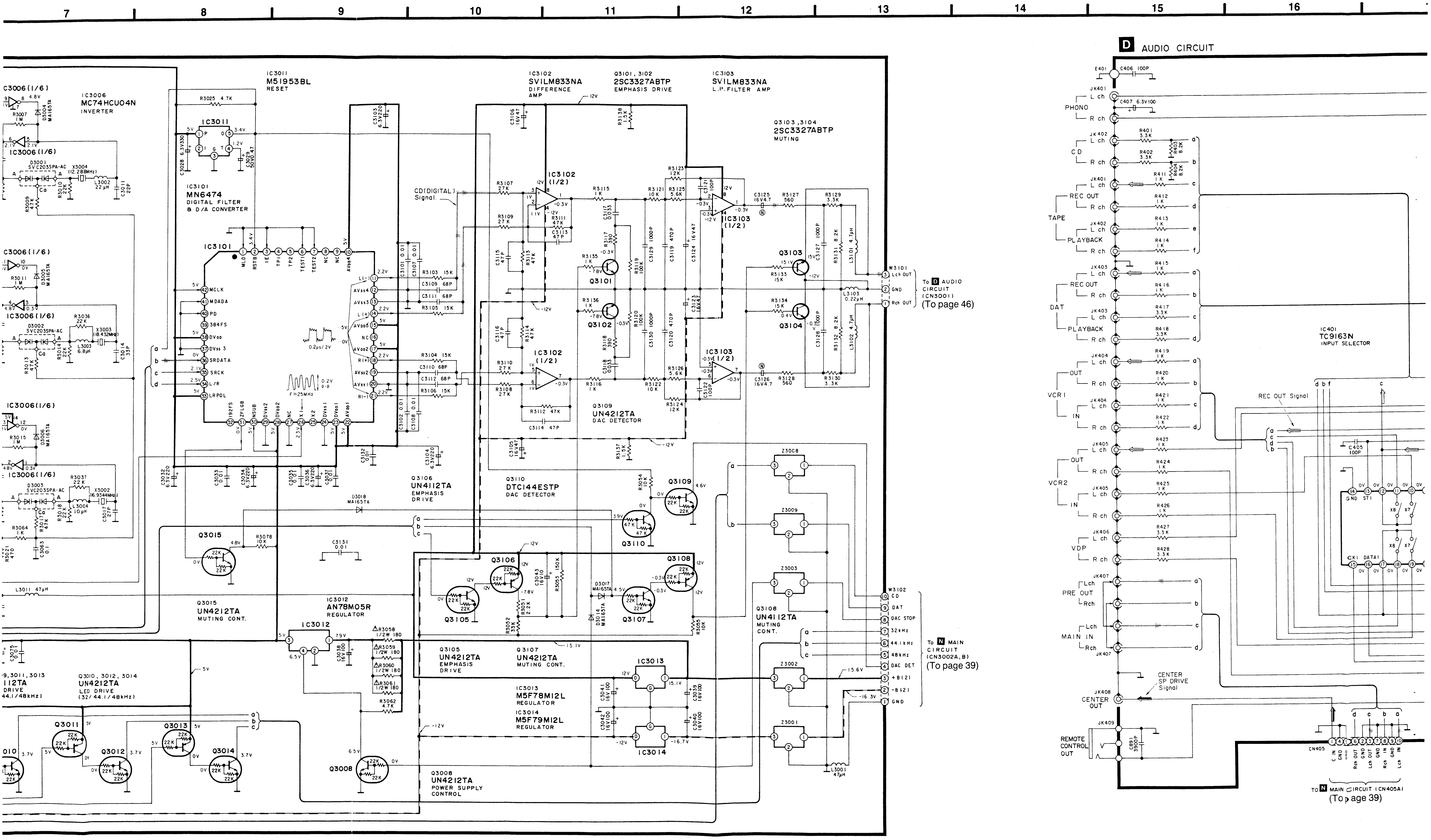
17
18
19
20
21
22
O POWER SUPPLY CIRCUIT
Q SPEARKER TERMINAL CIRCUIT
P SPEAKER SWITCH/ HEADPHONES JACK CIRCUIT
R SPEAKER IMPEDANCE SWITCH CIRCUIT
S POWER TRANSFORMER CIRCUIT
T AC IN AC OUTLETS CIRCUIT
Q701, 702, 706
2SD1761DEF
REGULATOR
Q703~705
2SC3311AQSTA
REGULATOR
Q708
2SB1187DEF
REGULATOR
Q707
2SA1309AQSTA
REGULATOR
Q709
2SB621AQRSTA
REGULATOR
Q1203
2SA992EFTA
RELAY DRIVE
Q609
2SA992EFTA
RELAY DRIVE
IC1201
SVI3206C
POWER AMP
(CENTER)
ΔIC1201
ΔIC601
D706 ~ 709
P300DLF
D702 ~ 705
SVDS2V20
ΔD701
SVDS10VB20F
Q652
2SC3311AQSTA
MOTOR DRIVE
Q751
2SC3940AQSTA
REGULATOR
Q651
2SA1309AQSTA
MOTOR DRIVE
Q755
2SC3311AQSTA
RELAY DRIVE
D751 ~ 754
1SR35200T8
FAN MOTOR
JK601
HEADPHONES
S601-2
(SPEAKER B)
S601-1
(SPEAKER A)
JK1301
L ch
R ch
REAR(8Ω)
JK1201
CENTER(8Ω)
SPEAKERS
JK602
A
B
FRONT
A OR B : 4~8Ω
/EACH SPEAKER
A AND B : 8Ω
/EACH SPEAKER
To G FL DRIVE
CIRCUIT(CN901A)
To G FL DRIVE
CIRCUIT(CN902A)
GND
AC
AC
-B(I)
+B(I)
-20.8
AFM
DAC
RFM
FM MONO
3 STEREO
DAC STOP
DATA 2
CK2
DATA 1
CE
(8Ω→4Ω···A&B
(4~6Ω→8Ω···A or B)
4Ω
8Ω
ΔS702
(SPEAKER IMPEDANCE)
ΔT752
ΔT751
ΔF1
125V 8A
ΔF3 125V4A
ΔF4 125V4A
ΔR723
1/2W1
ΔJK792
ΔJK791
ΔJK793
AC OUTLETS
(SWITCHED)
AC 120V
(60Hz)
JK701
E601
CN701A
CN701B
CN1301
CN601
CN1201
CN602
CN702
CN703
CN704
CN751
CN901
CN902
CN601A
CN601B
CN651
15.6V
5.6V
34.3V
-34.4V
-24.6V
L751
100μH

•OPTICAL (DIGITAL)/AUDIO TERMINAL CIRCUIT


A DIGITAL CIRCUIT
IC3002
IC3003
IC3004
DIGITAL (OPTICAL)
CD
PLAYBACK
DAT
REC OUT
IC3001 (1/3)
IC3001 MC74HC125AN INPUT SELECTOR (CD/DAT)
IC3002, 3003 TORX174-A OPTICAL RECEIVER
IC3004 TOTX174-A OPTICAL TRANSMISSON MODULE
CD(DIGITAL) Signal
IC3016(1/2)
IC3016 TC74HC123AP FLIP-FLOP
Q3003, 3004 2SC3311AQSTA LOOP FILTER AMP
Q3003
Q3004
IC3005 LC6527H-4612 LED DRIVE CONT.
IC3005
IC3008 SN74LS624N VCO
IC3008
IC3006(1/6)
IC3006 MC74HCU04N INVERTER
IC3011 M51953BL RESET
IC3011
IC3101 MN6474 DIGITAL FILTER & D/A CONVERTER
IC3101
CD(DIGITAL) Signal
IC3010 YM3623B DIGITAL SIGNAL PROCESSOR
IC3010
IC3007 LM7001 PLL FREQUENCY SYNTHESIZER
IC3007
IC3015
IC3015 TC74HC21AP AND GATE
F=16.9344MHz
F=12.5MHz
F≒25MHz
T=3.6μs
T=20μs
Q3005
Q3005 2SC3311AQSTA LOOP FILTER AMP
IC3009 MC74HC86N EXCLUSIVE OR GATE
IC3009(1/4)
Q3002
Q3001
Q3001, 3002 2SC3311AQSTA LOOP FILTER AMP
Q3006
Q3006 2SD1450RSTTA SWITCHING
Q3007
Q3007 UN4112TA SWITCHING CONT.
Q3009, 3011, 3013 UN4112TA LED DRIVE (32/44.1/48kHz)
Q3010, 3012, 3014 UN4212TA LED DRIVE (32/44.1/48kHz)
Q3009
Q3010
Q3011
Q3012
Q3013
Q3014
Q3015
Q3015 UN4212TA MUTING CONT.
IC3012 AN78M05R REGULATOR
IC3012
Q3008
Q3008 UN4222TA POWER SUPPLY CONTROL
Q3106 UN4112TA EMPHASIS DRIVE
Q3106
Q3105
Q3105 UN4212TA EMPHASIS DRIVE
Q3110 DTC144E DAC DETEC
Q3107 UN42 MUTIN
IC3013 M5F7 REGUL
IC3014 M5F7 REGUL
X3002 (16.9344MHz)
X3003 (18.432MHz)
X3004 (12.288MHz)
1 2 3 4 5 6 7 8 9 10
A B C D E F


7
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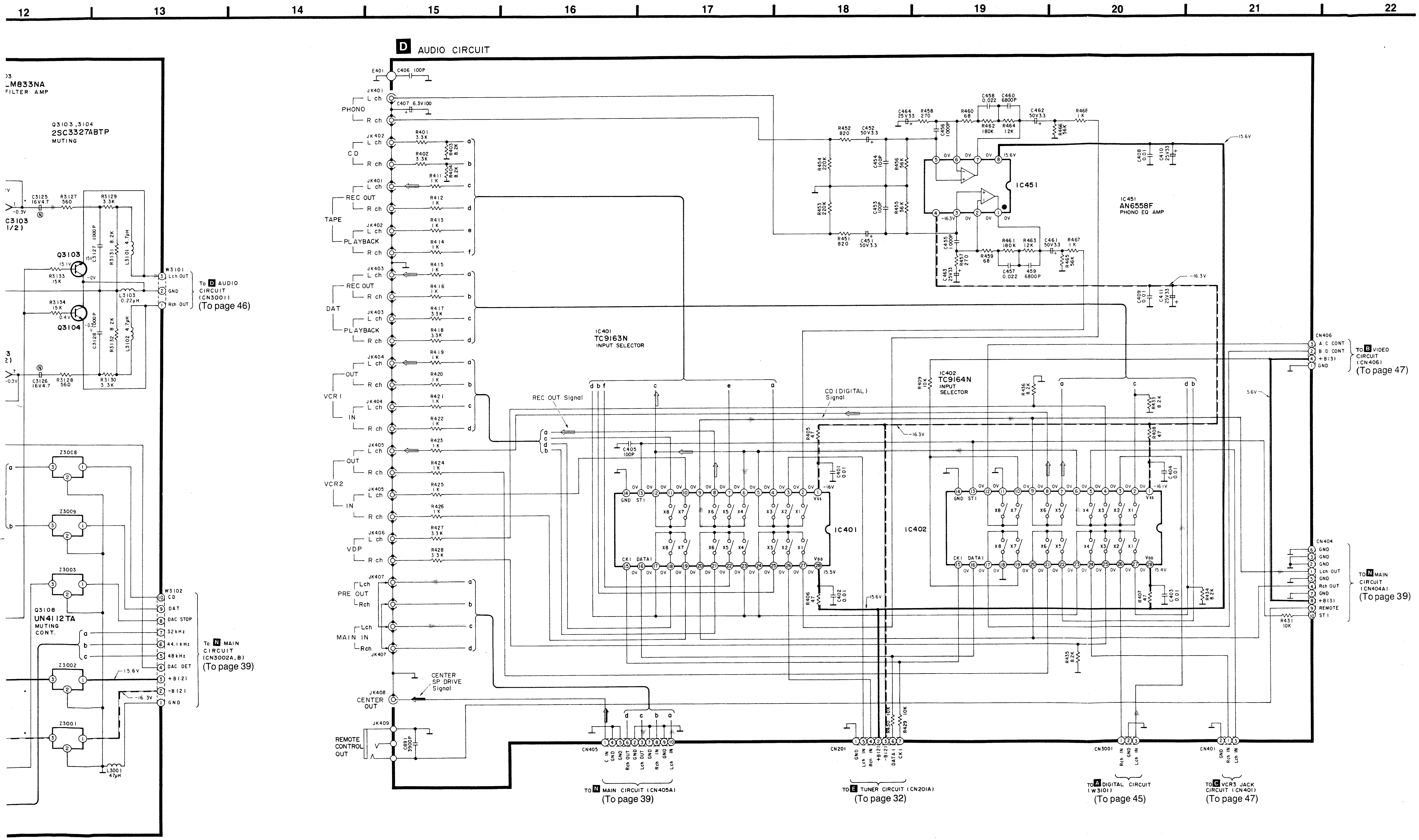
11
12
13
14
15
16
IC3006 MC74HCU04N INVERTER
IC3006 (1/6)
D3001 SVC203SPA-AC
X3004 (12.288MHz)
L3002 22μH
D3002 SVC203SPA-AC
X3003 (18.432MHz)
L3003 6.8μH
D3003 SVC203SPA-AC
X3002 (16.9344MHz)
L3004 10μH
L3011 47μH
IC3011 M51953BL RESET
IC3101 MN6474 DIGITAL FILTER & D/A CONVERTER
MCLK
MDADA
PD
384FS
DVDD
DVSS 3
SRDATA
SRCK
L/R
LRPOL
L(-)
AVSS4
AVSS3
L(+)
AVDD5
NC
AVDD2
R(+)
AVSS2
AVSS1
R(-)
F=25MHz
0.2V p-p
0.2μs/2V
CD(DIGITAL) Signal
IC3102 SVILM833NA DIFFERENCE AMP
IC3102 (1/2)
Q3101, 3102 2SC3327ABTP EMPHASIS DRIVE
Q3101
Q3102
IC3103 SVILM833NA L.P.FILTER AMP
IC3103 (1/2)
Q3103, 3104 2SC3327ABTP MUTING
Q3103
Q3104
Q3109 UN4212TA DAC DETECTOR
Q3106 UN4112TA EMPHASIS DRIVE
Q3110 DTC144ESTP DAC DETECTOR
Q3015 UN4212TA MUTING CONT.
IC3012 AN78M05R REGULATOR
Q3105 UN4212TA EMPHASIS DRIVE
Q3107 UN4212TA MUTING CONT.
Q3108 UN4112TA MUTING CONT.
IC3013 M5F78M12L REGULATOR
IC3014 M5F79M12L REGULATOR
Q3008 UN4212TA POWER SUPPLY CONTROL
Q3010, 3012, 3014 UN4212TA LED DRIVE (32/44.1/48kHz)
Q3009, 3011, 3013 UN4112TA DRIVE (44.1/48kHz)
Z3008
Z3009
Z3003
Z3002
Z3001
W3101
Lch OUT
GND
Rch OUT
To D AUDIO CIRCUIT (CN3001)
(To page 46)
W3102
CD
DAT
DAC STOP
32kHz
44.1kHz
48kHz
DAC DET
+B(2)
-B(2)
GND
To N MAIN CIRCUIT (CN3002A, B)
(To page 39)
D AUDIO CIRCUIT
PHONO
CD
TAPE
REC OUT
PLAYBACK
DAT
VCR1
VCR2
OUT
IN
VDP
PRE OUT
MAIN IN
CENTER OUT
CENTER SP DRIVE Signal
REMOTE CONTROL OUT
REC OUT Signal
IC401 TC9163N INPUT SELECTOR
CN405
To N MAIN CIRCUIT (CN405A)
(To page 39)


12
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17
18
19
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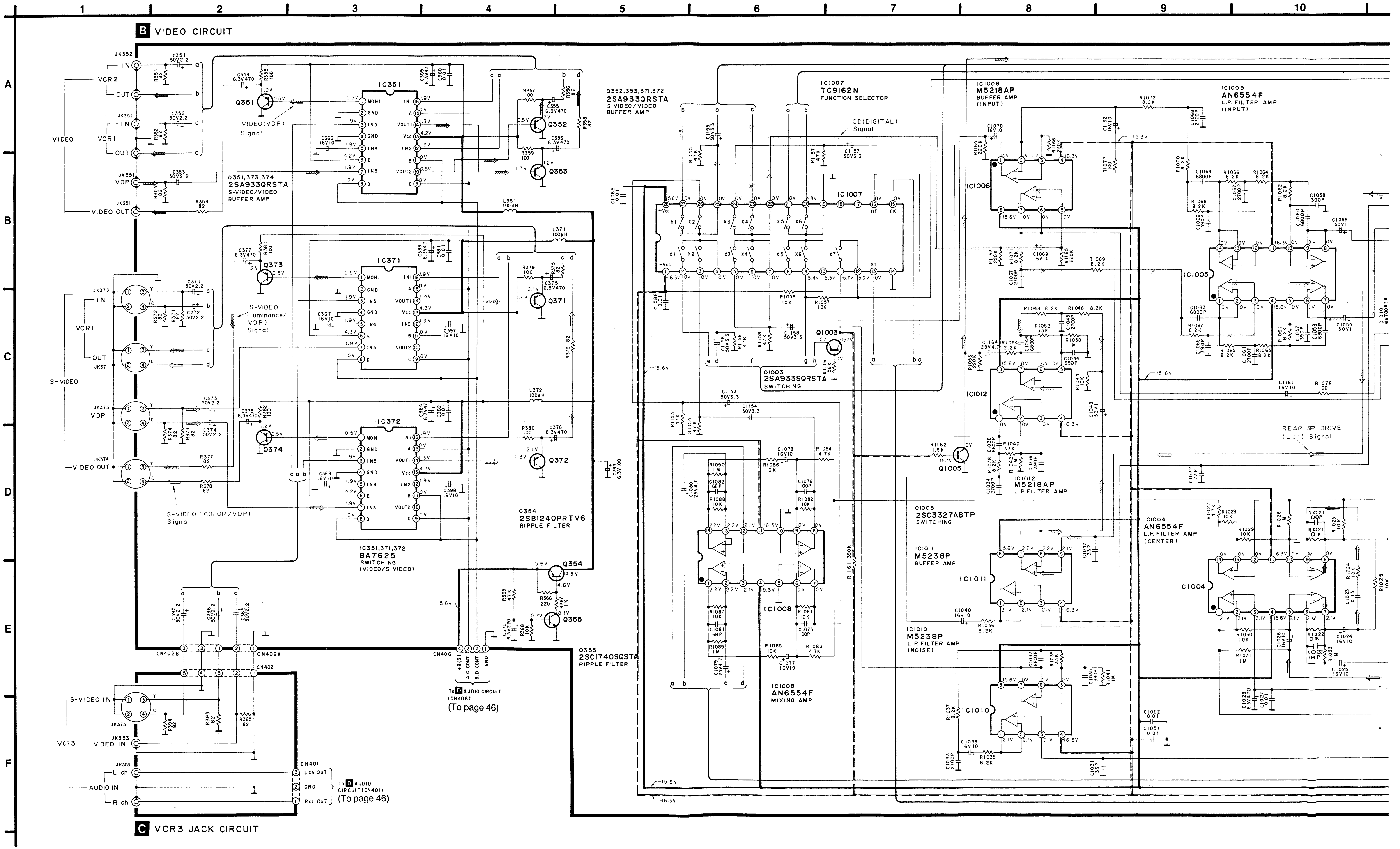
21
22
LM833NA
FILTER AMP
Q3103,3104
2SC3327ABTP
MUTING
C3125 16V4.7
R3127 560
R3129 3.3K
C3103 (1/2)
Q3103
Q3104
R3133 15K
R3134 15K
C3127 1000P
R3131 8.2K
L3101 4.7µH
L3103 0.22µH
C3128 1000P
R3132 8.2K
L3102 4.7µH
C3126 16V4.7
R3128 560
R3130 3.3K
W3101
Lch OUT
GND
Rch OUT
To D AUDIO CIRCUIT (CN3001)
(To page 46)
Z3008
Z3009
Z3003
Z3002
Z3001
Q3108
UN4112TA
MUTING CONT.
W3102
CD
DAT
DAC STOP
32kHz
44.1kHz
48kHz
DAC DET
+B(2)
-B(2)
GND
To N MAIN CIRCUIT (CN3002A,B)
(To page 39)
L3001 47µH
D AUDIO CIRCUIT
E401
C406 100P
JK401
PHONO
L ch
R ch
C407 6.3V100
JK402
CD
R401 3.3K
R402 3.3K
R403 8.2K
R404 8.2K
TAPE
REC OUT
PLAYBACK
R411 1K
R412 1K
R413 1K
R414 1K
JK403
DAT
R415 1K
R416 1K
R417 3.3K
R418 3.3K
JK404
VCR1
OUT
IN
R419 1K
R420 1K
R421 1K
R422 1K
JK405
VCR2
R423 1K
R424 1K
R425 1K
R426 1K
JK406
VDP
R427 3.3K
R428 3.3K
JK407
PRE OUT
MAIN IN
Lch
Rch
JK408
CENTER OUT
CENTER SP DRIVE Signal
JK409
REMOTE CONTROL OUT
C601 3900P
REC OUT Signal
IC401
TC9163N
INPUT SELECTOR
C405 100P
R405 47
R406 47
C401 0.01
C402 0.01
-16V
15.5V
-16.3V
15.6V
CK1
DATA1
GND
ST1
Vss
Vdd
IC402
TC9164N
INPUT SELECTOR
R409 10K
R436 8.2K
R433 8.2K
R408 47
R407 47
C404 0.01
C403 0.01
R434 8.2K
R435 8.2K
-16.1V
15.4V
CD (DIGITAL) Signal
C464 25V33
R458 270
R452 820
C452 50V3.3
C456 1000P
R460 68
C458 0.022
C460 6800P
R462 180K
R464 12K
C462 50V3.3
R468 1K
R466 56K
R454 220K
C454 100P
R456 56K
R453 220K
C453 100P
R455 56K
R451 820
C451 50V3.3
C455 1000P
C463 25V33
R457 270
R459 68
R461 180K
R463 12K
C457 0.022
459 6800P
C461 50V3.3
R467 1K
R465 56K
IC451
AN6558F
PHONO EQ AMP
C408 0.01
C410 25V33
C409 0.01
C411 25V33
5.6V
CN406
A.C CONT
B.D CONT
+B(3)
GND
To B VIDEO CIRCUIT (CN406)
(To page 47)
CN404
GND
Lch OUT
Rch OUT
+B(3)
REMOTE
ST1
R431 10K
To N MAIN CIRCUIT (CN404A)
(To page 39)
CN405
C IN
GND
Rch OUT
Lch OUT
Rch IN
Lch IN
To N MAIN CIRCUIT (CN405A)
(To page 39)
CN201
R430 10K
R429 10K
GND
Lch IN
Rch IN
+B(2)
-B(2)
DATA1
CK1
To E TUNER CIRCUIT (CN201A)
(To page 32)
CN3001
To A DIGITAL CIRCUIT (W3101)
(To page 45)
CN401
To C VCR3 JACK CIRCUIT (CN401)
(To page 47)

●VIDEO TERMINAL CIRCUIT


1
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3
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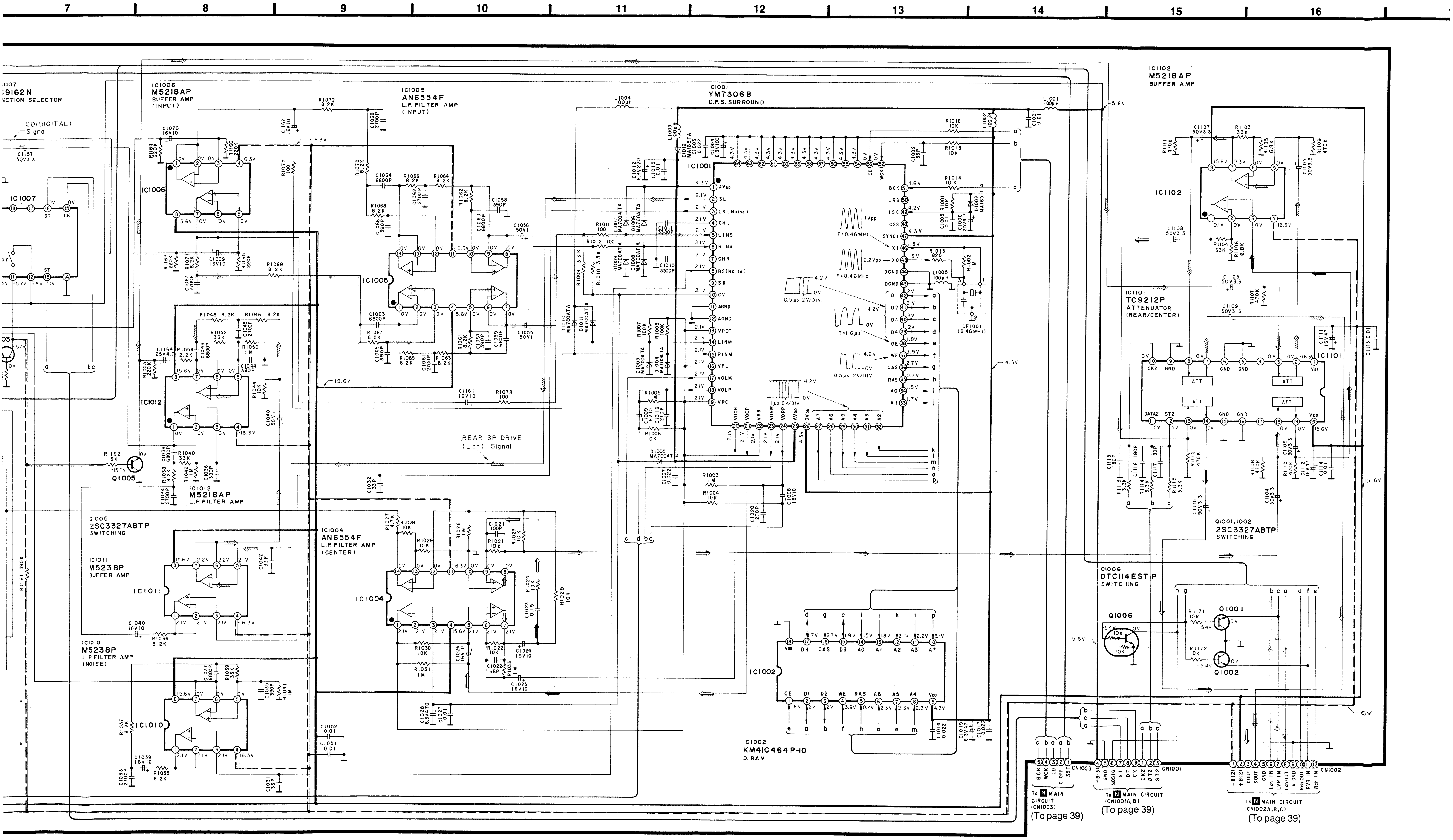
9
10
A
B
C
D
E
F
B VIDEO CIRCUIT
C VCR3 JACK CIRCUIT
VIDEO
VCR 2
VCR 1
IN
OUT
VDP
VIDEO OUT
JK352
JK351
S-VIDEO
JK372
JK371
JK373
JK374
Q351
Q352
Q353
Q371
Q373
Q374
Q372
Q354
Q355
VIDEO(VDP) Signal
S-VIDEO (luminance/VDP) Signal
S-VIDEO (COLOR/VDP) Signal
Q351,373,374 2SA933QRSTA S-VIDEO/VIDEO BUFFER AMP
Q352,353,371,372 2SA933QRSTA S-VIDEO/VIDEO BUFFER AMP
IC351
IC371
IC372
IC351,371,372 BA7625 SWITCHING (VIDEO/S VIDEO)
MONI
GND
IN5
IN4
E
IN3
D
IN1
VOUT1
Vcc
IN2
B
VOUT2
C
L351
L371 100μH
L372 100μH
Q354 2SB1240PRTV6 RIPPLE FILTER
Q355 2SC1740SQSTA RIPPLE FILTER
CN402B
CN402A
CN402
CN406
+B131
A.C CONT
B.D CONT
GND
To D AUDIO CIRCUIT (CN406)
(To page 46)
S-VIDEO IN
JK375
VCR3
JK353
VIDEO IN
AUDIO IN
L ch
R ch
CN401
Lch OUT
Rch OUT
To D AUDIO CIRCUIT(CN401)
(To page 46)
IC1007 TC9162N FUNCTION SELECTOR
CD(DIGITAL) Signal
+Vcc
-Vcc
DT
CK
ST
Q1003 2SA933SQRSTA SWITCHING
IC1008 AN6554F MIXING AMP
IC1006 M5218AP BUFFER AMP (INPUT)
IC1005 AN6554F L.P. FILTER AMP (INPUT)
IC1012 M5218AP L.P.FILTER AMP
Q1005 2SC3327ABTP SWITCHING
IC1011 M5238P BUFFER AMP
IC1010 M5238P L.P. FILTER AMP (NOISE)
IC1004 AN6554F L.P. FILTER AMP (CENTER)
REAR SP DRIVE (Lch) Signal
D1010 MA700A
-15.6V
-16.3V
15.6V
16.3V
5.6V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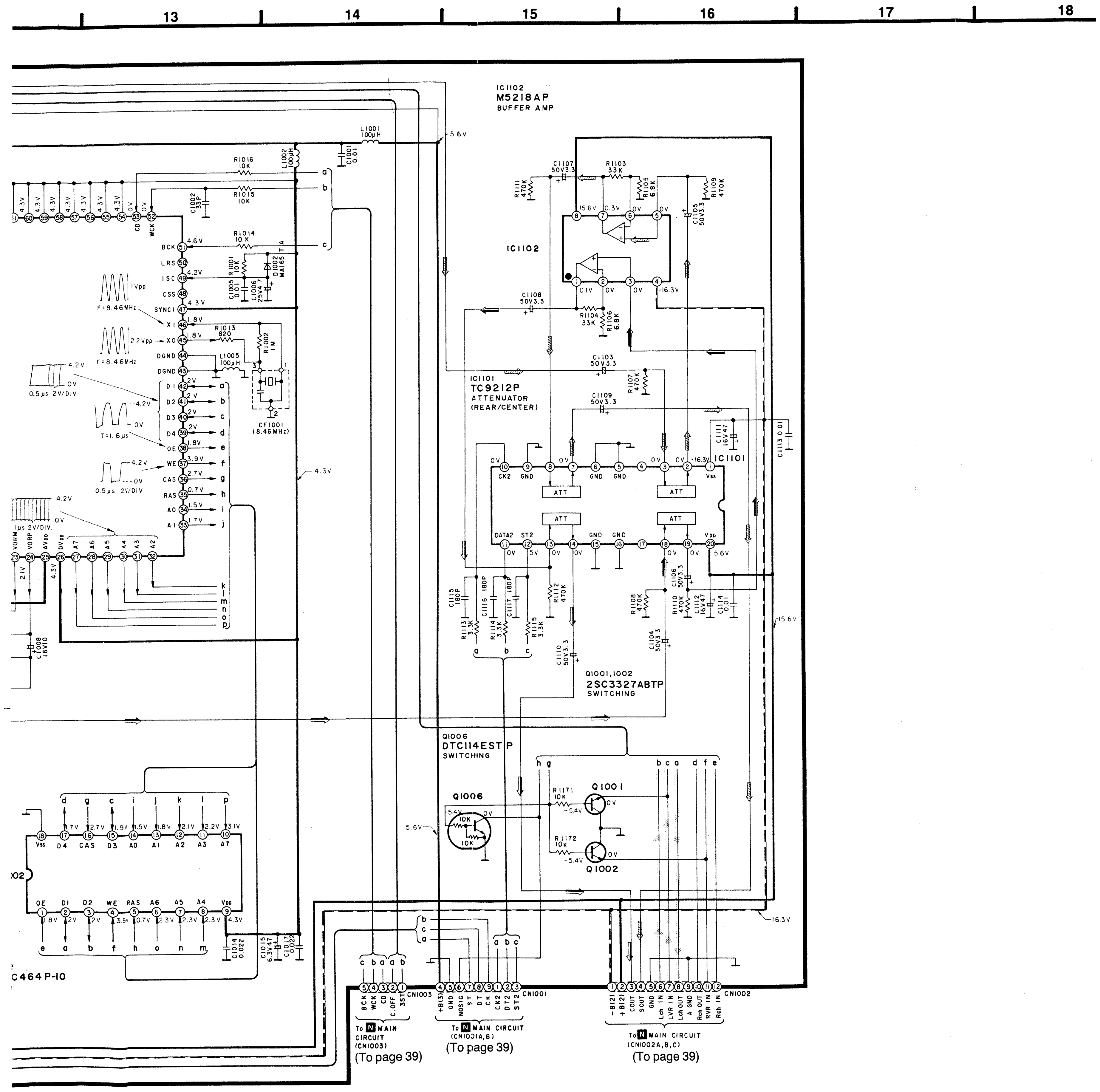
16
IC1006
M5218AP
BUFFER AMP
(INPUT)
IC1005
AN6554F
L.P. FILTER AMP
(INPUT)
IC1001
YM7306B
D.P.S. SURROUND
IC1102
M5218AP
BUFFER AMP
CD(DIGITAL) Signal
IC1007
IC1012
M5218AP
L.P. FILTER AMP
Q1005
2SC3327ABTP
SWITCHING
IC1011
M5238P
BUFFER AMP
IC1010
M5238P
L.P. FILTER AMP
(NOISE)
IC1004
AN6554F
L.P. FILTER AMP
(CENTER)
REAR SP DRIVE
(Lch) Signal
IC1101
TC9212P
ATTENUATOR
(REAR/CENTER)
Q1001,1002
2SC3327ABTP
SWITCHING
Q1006
DTC114ESTP
SWITCHING
IC1002
KM41C464P-10
D. RAM
AVDD
SL
LS (Noise)
CHL
LINS
RINS
CHR
RS (Noise)
SR
CV
AGND
VREF
LINM
RINM
VPL
VOLM
VOLP
VRC
BCK
LRS
ISC
CSS
SYNC1
X1
X0
DGND
D1
D2
D3
D4
OE
WE
CAS
RAS
A0
A1
F=8.46MHz
1Vpp
2.2Vpp
0.5μs 2V/DIV
T=1.6μs
1μs 2V/DIV
CF1001 (8.46MHz)
ATT
CN1003
BCK
WCK
CD
C.OFF
3ST
To N MAIN CIRCUIT (CN1003)
(To page 39)
CN1001
GND
+B(13)
NOSIG
ST
DT
CK
CK2
DT2
ST2
To N MAIN CIRCUIT (CN1001A,B)
(To page 39)
CN1002
-B(12)
+B(12)
COUT
SOUT
GND
Lch IN
LVR IN
Lch OUT
A GND
Rch OUT
RVR IN
Rch IN
To N MAIN CIRCUIT (CN1002A,B,C)
(To page 39)
-16.3V
15.6V
5.6V
4.3V


13
14
15
16
17
18
IC1102
M5218AP
BUFFER AMP
IC1101
TC9212P
ATTENUATOR
(REAR/CENTER)
Q1001,1002
2SC3327ABTP
SWITCHING
Q1006
DTC114ESTP
SWITCHING
Q1001
Q1002
Q1006
L1001 100μH
L1002 100μH
L1005 100μH
CF1001 (8.46MHz)
R1016 10K
R1015 10K
R1014 10K
R1013 820
R1002 1M
R1103 33K
R1104 33K
R1111 470K
R1171 10K
R1172 10K
F=8.46MHz
1Vpp
2.2Vpp
0.5μs 2V/DIV.
T=1.6μs
1μs 2V/DIV
BCK
LRS
ISC
CSS
SYNC1
X1
X0
DGND
D1
D2
D3
D4
OE
WE
CAS
RAS
A0
A1
ATT
CK2
DATA2
ST2
GND
Vss
VDD
5.6V
4.3V
15.6V
-16.3V
C464P-10
CN1003
CN1001
CN1002
BCK
WCK
CD
C.OFF
3ST
+B(13)
GND
NOSIG
ST
DT
CK
CK2
DT2
ST2
-B(12)
+B(12)
COUT
SOUT
GND
Lch IN
LVR IN
Lch OUT
A.GND
Rch OUT
RVR IN
Rch IN
To N MAIN CIRCUIT (CN1003)
(To page 39)
To N MAIN CIRCUIT (CN1001A,B)
(To page 39)
To N MAIN CIRCUIT (CN1002A,B,C)
(To page 39)

■ SCHEMATIC DIAGRAM (REMOTE CONTROLLER)

(Parts list on page 81)

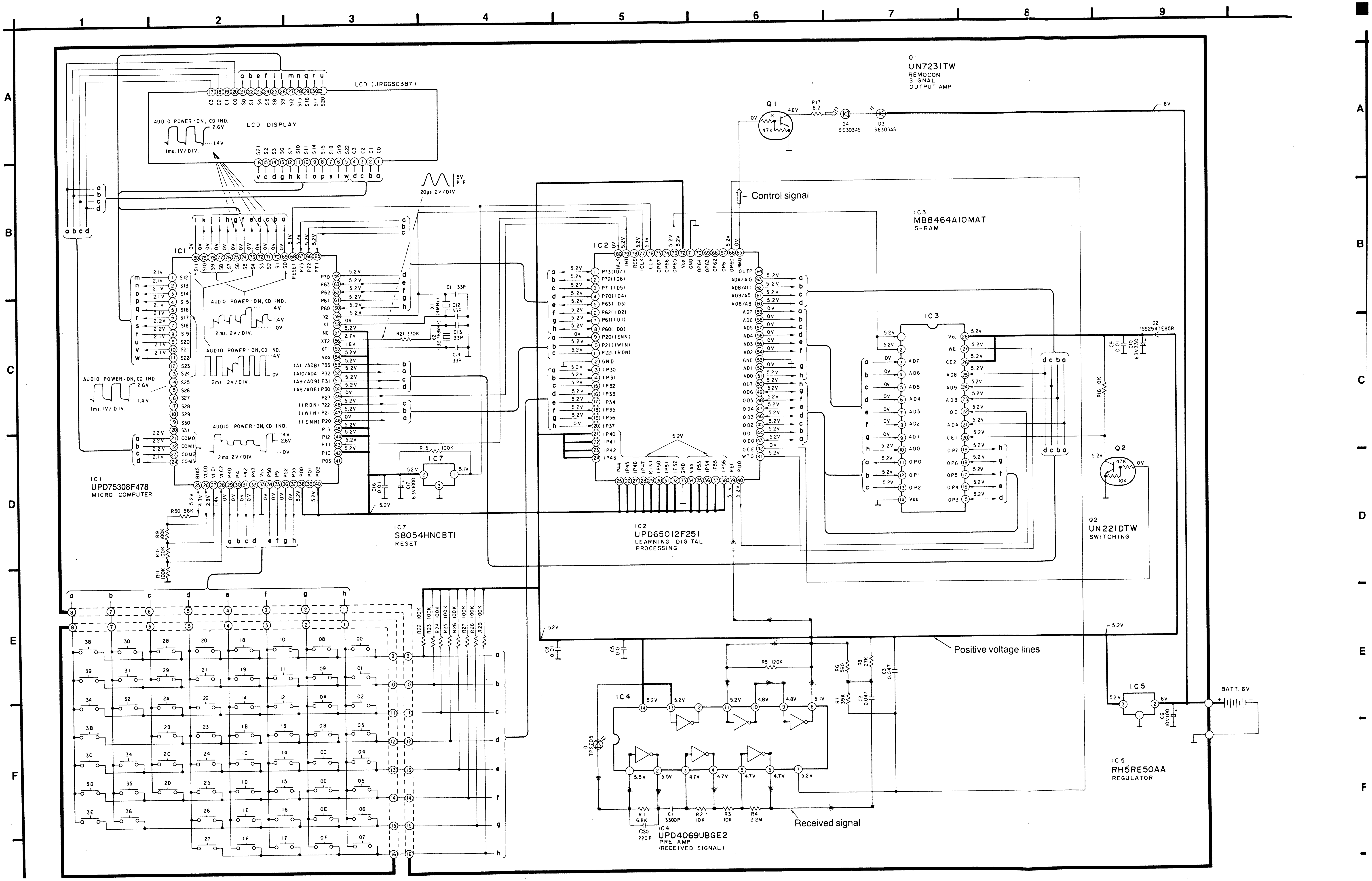
(This schematic diagram may be modified at any time with the development of new technology.)

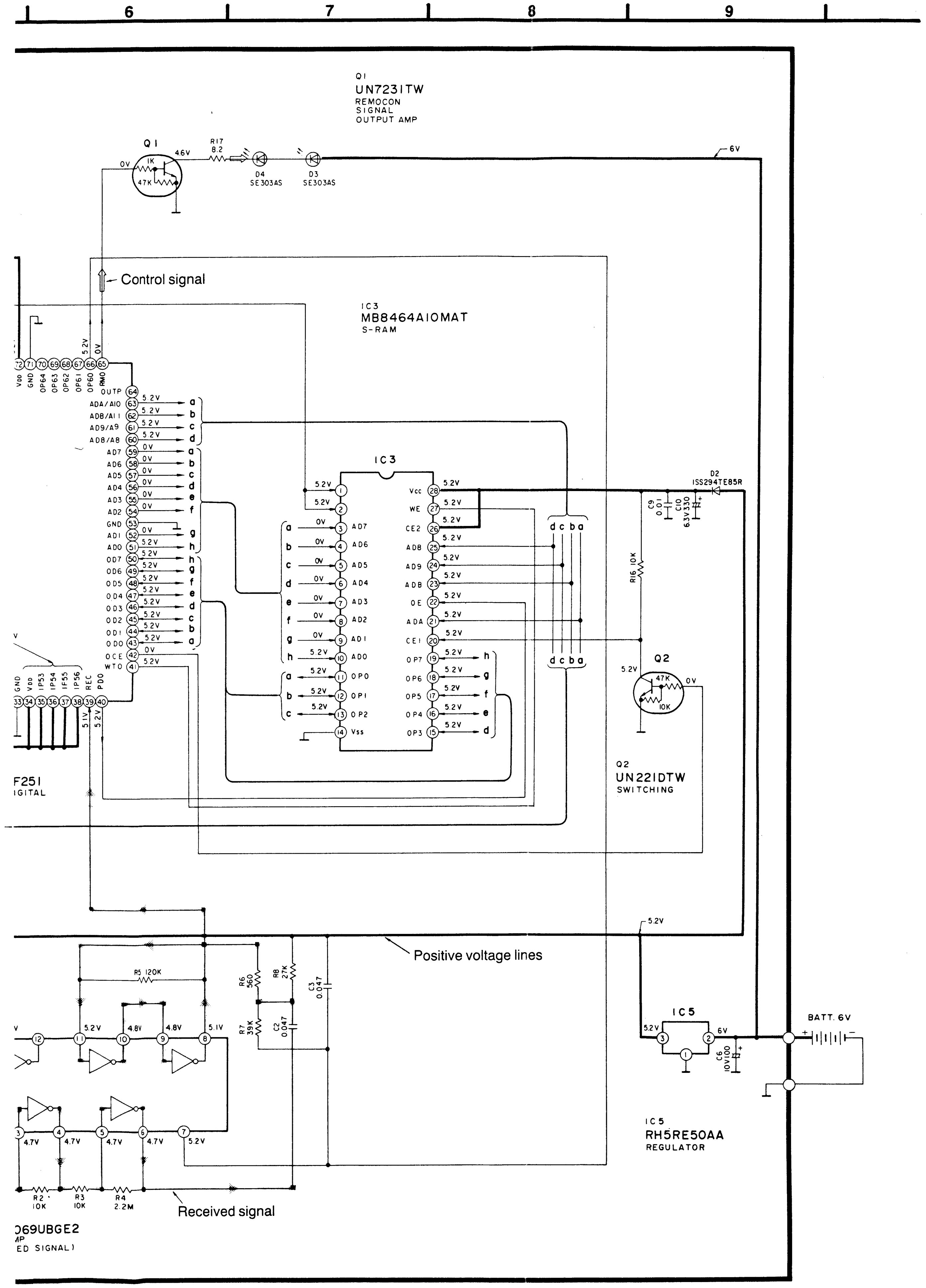
- ▬▬ : Positive voltage lines
- ⇨ : Control signal lines
- ▨ : Received signal lines

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

***Caution!**

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care furing repair.
*Cover the parts boxes made of plastics with aluminum foil.
*Ground the soldering iron.
*Put a conductive mat on the work table.
*Do not touch the legs of IC or LSI with the fingers directly.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
LCD (UR66SC387)
LCD DISPLAY
AUDIO POWER: ON, CD IND.
2.6V
1.4V
1ms. 1V/DIV.
5V p-p
20μs 2V/DIV
IC1
UPD75308F478
MICRO COMPUTER
2ms. 2V/DIV.
R30 56K
R9 100K
R10 100K
R11 100K
C11 33P
C12 33P
C13 33P
C14 33P
X1 (4MHz)
X2 (32.768KHz)
R21 330K
R15 100K
IC7
S8054HNCBT1
RESET
C16 0.01
C17 6.3V1000
IC2
UPD65012F251
LEARNING DIGITAL PROCESSING
IC3
MB8464A10MAT
S-RAM
Q1
UN7231TW
REMOCON SIGNAL OUTPUT AMP
R17 8.2
D4 SE303AS
D3 SE303AS
Control signal
D2 1SS294TE85R
C9 0.01
C10 6.3V330
R16 10K
Q2
UN221DTW
SWITCHING
R22 100K
R23 100K
R24 100K
R25 100K
R26 100K
R27 100K
R28 100K
R29 100K
C8 0.01
C5 0.01
Positive voltage lines
R5 120K
R6 560
R8 27K
R7 39K
C2 0.047
C3 0.047
IC4
UPD4069UBGE2
PRE AMP (RECEIVED SIGNAL)
D1 TPS705
R1 6.8K
C1 3300P
R2 10K
R3 10K
R4 2.2M
C30 220P
Received signal
IC5
RH5RE50AA
REGULATOR
C6 10V100
BATT. 6V
6V
5.2V


6
7
8
9
Q1
UN7231TW
REMOCON SIGNAL OUTPUT AMP
R17 8.2
D4 SE303AS
D3 SE303AS
6V
Control signal
IC3
MB8464A10MAT
S-RAM
OUTP
WTO
OCE
Vcc
WE
CE2
AD8
AD9
AD8
OE
ADA
CE1
OP7
OP6
OP5
OP4
OP3
Vss
D2
1SS294TE85R
C9 0.01
C10 6.3V330
R16 10K
Q2
UN221DTW
SWITCHING
F251
IGITAL
Positive voltage lines
R5 120K
R6 560
R8 27K
R7 39K
C3 0.047
C2 0.047
IC5
BATT. 6V
C6 10V100
IC5
RH5RE50AA
REGULATOR
R2 10K
R3 10K
R4 2.2M
Received signal
069UBGE2
ED SIGNAL

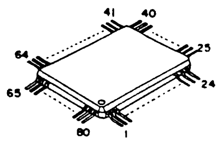
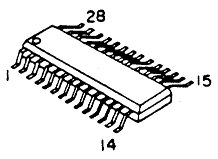
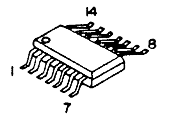
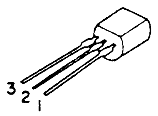
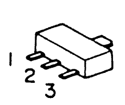
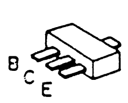
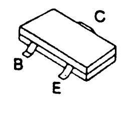
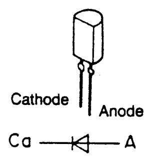
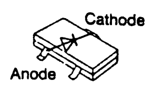
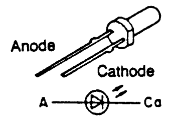
■ PRINTED CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM (REMOTE CON

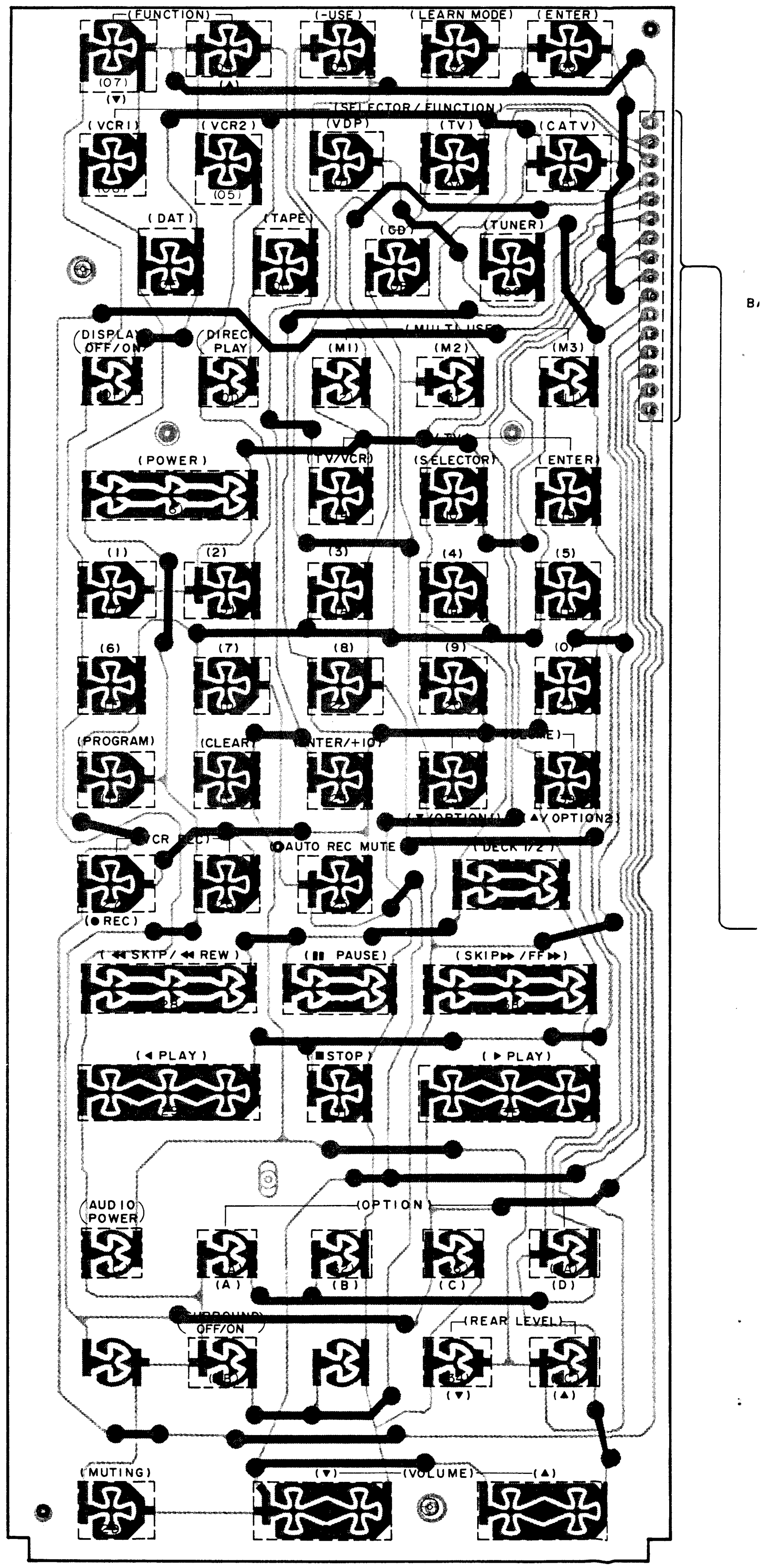
Notes:

This diagram shows a front view of the IC mounting surface.

1. The circuit shown in (▒) on the conductor indicates printed circuit on the front side of the printed circuit board.
2. The circuit shown in (▬) on the conductor indicates printed circuit on the back side of the printed circuit board.
3. The symbols (●) shwon in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.

•Terminal guide of IC's, transistors and diodes.

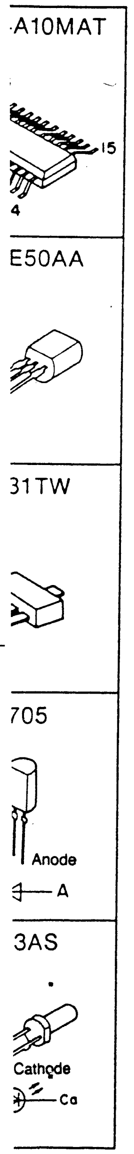
UPD65012F251 UPD75308F478 	MB8464A10MAT 
UPD4069UBGE2 	RH5RE50AA 
S8054HNCBT1 	UN7231TW 
UN221DTW 	TPS705 
1SS294TE85R 	SE303AS 


FUNCTION
-USE
LEARN MODE
ENTER
(07)
(▼)
(▲)
SELECTOR/FUNCTION
VCR1
VCR2
VDP
TV
CATV
(05)
DAT
TAPE
CD
TUNER
DISPLAY OFF/ON
DIREC PLAY
MULTI USE
M1
M2
M3
POWER
TV
TV/VCR
SELECTOR
ENTER
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
(9)
10
PROGRAM
CLEAR
ENTER/+10
▼/OPTION1
▲/OPTION2
AUTO REC MUTE
DECK 1/2
REC
◄◄ SKIP/◄◄ REW
▮▮ PAUSE
SKIP►►/FF►►
◄ PLAY
■ STOP
► PLAY
AUDIO POWER
OPTION
(A)
(B)
(C)
(D)
SURROUND OFF/ON
REAR LEVEL
(▼)
(▲)
MUTING
(▼)
VOLUME
(▲)

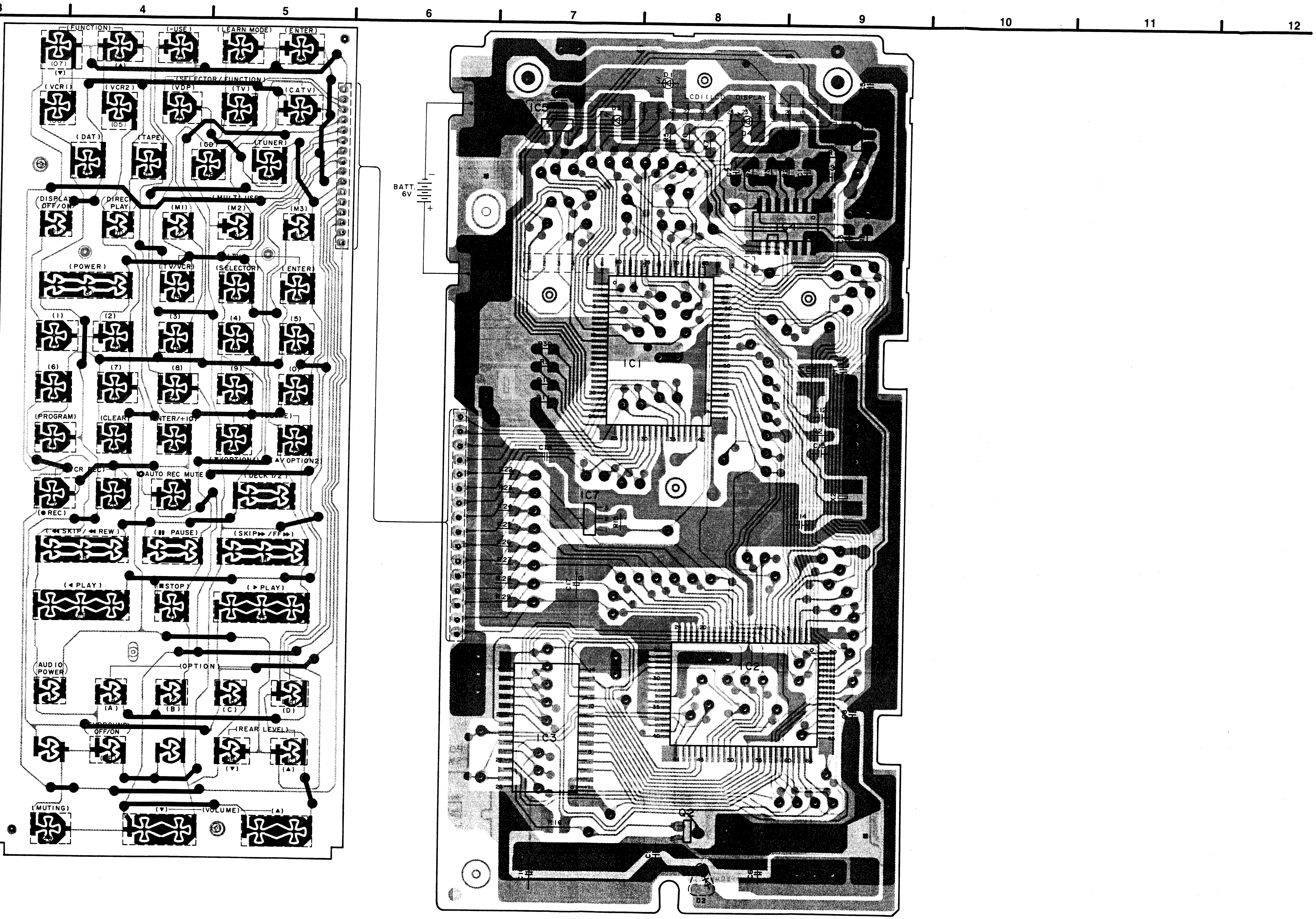
ƎOARDS AND WIRING CONNECTION DIAGRAM (REMOTE CONTROLLER) (Parts list on page 81)

ıe IC

he
on the
ırd.
ıe
on the
ırd.
ıit board
ın
ack side of

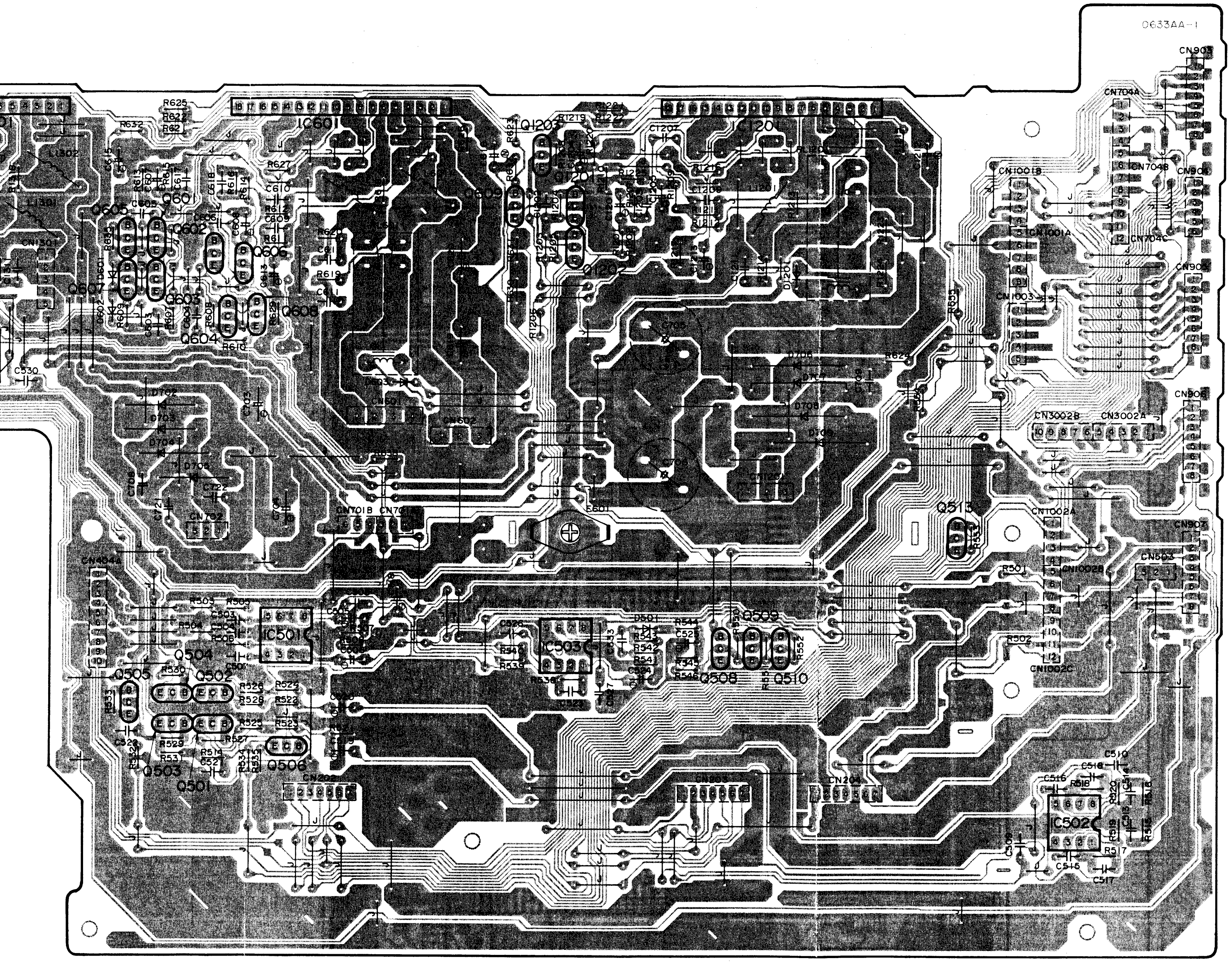


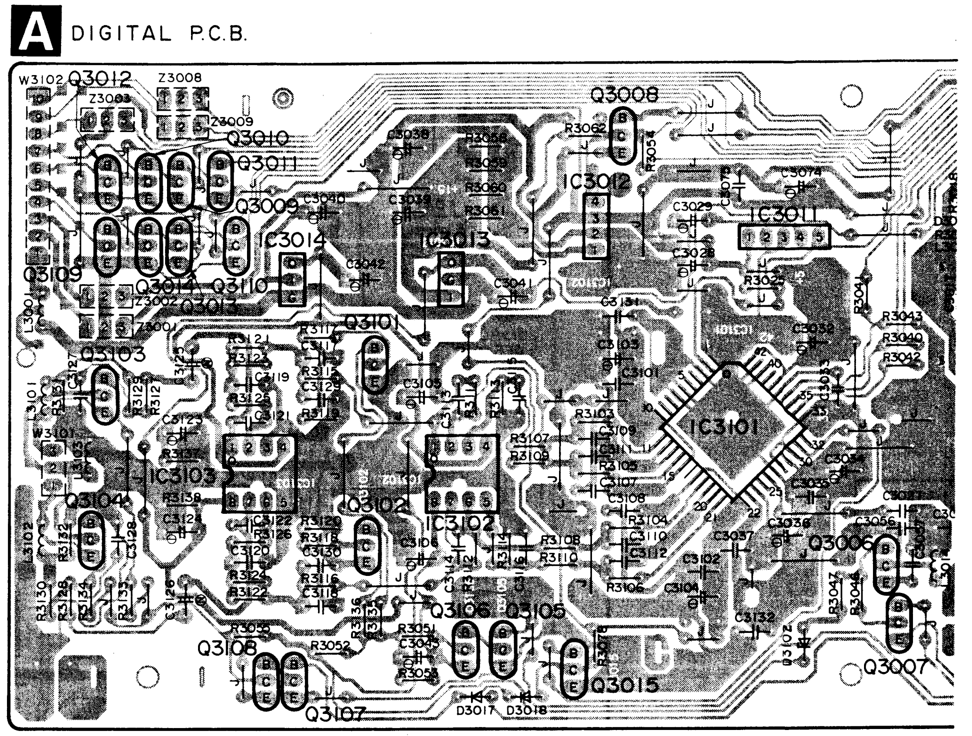
A10MAT
15
4
E50AA
31TW
705
Anode
A
3AS
Cathode
Ca

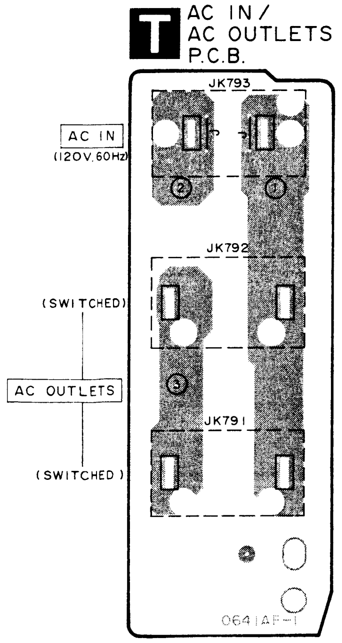


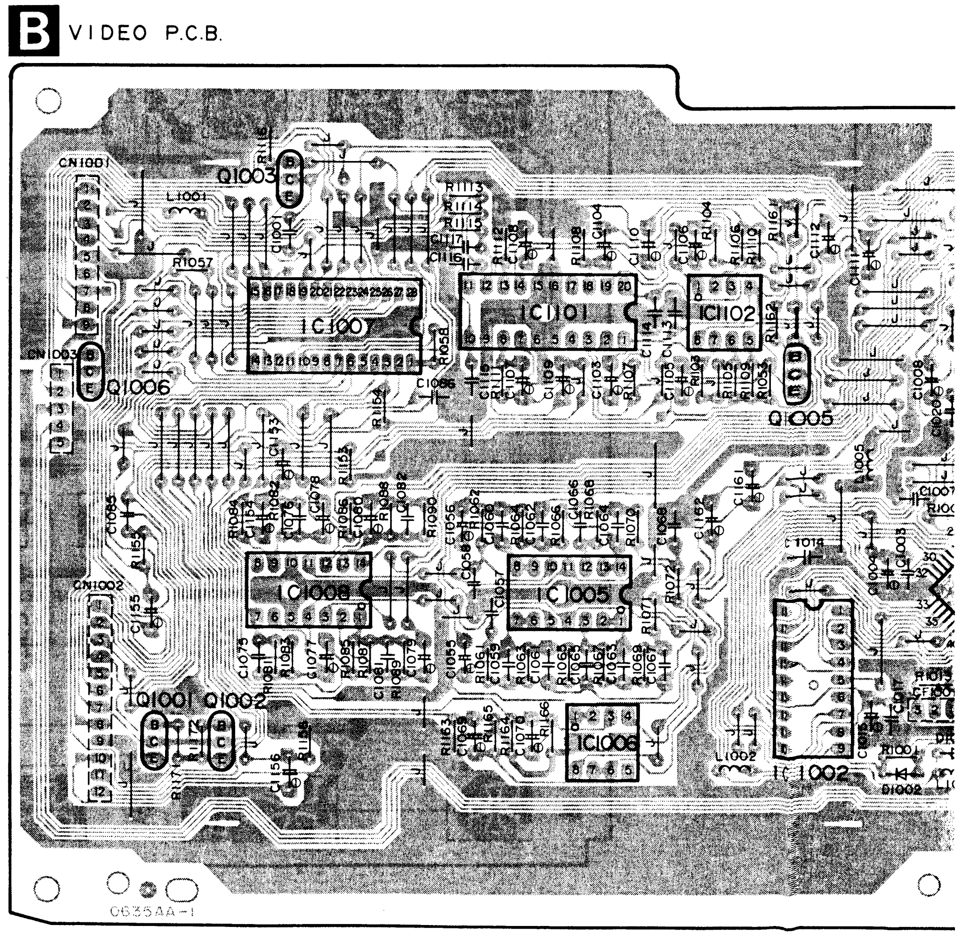
2
3
4
5
6
7
8
9
10
11
12
(FUNCTION)
(-USE)
(LEARN MODE)
(ENTER)
(SELECTOR/FUNCTION)
(VCR1)
(VCR2)
(VDP)
(TV)
(CATV)
(DAT)
(TAPE)
(CD)
(TUNER)
(DISPLAY OFF/ON)
(DIRECT PLAY)
(MULTI USE)
(M1)
(M2)
(M3)
(POWER)
(TV/VCR)
(SELECTOR)
(ENTER)
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
(9)
(0)
(PROGRAM)
(CLEAR)
(ENTER/+10)
(VCR REC)
AUTO REC MUTE
(DECK 1/2)
(● REC)
(◄◄SKIP/◄◄REW)
(❚❚ PAUSE)
(SKIP►►/FF►►)
(◄ PLAY)
(■STOP)
(► PLAY)
(AUDIO POWER)
(OPTION)
(A)
(B)
(C)
(D)
(SURROUND OFF/ON)
(REAR LEVEL)
(▼)
(▲)
(MUTING)
(VOLUME)
BATT
6V
IC1
IC2
IC3
IC5
IC7
Q2
D2
LCD
DISPLAY

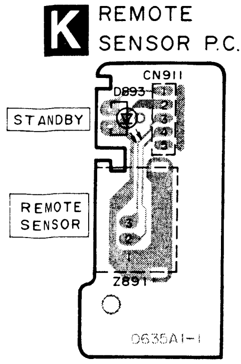
■ PRINTED CIRCUIT BOARDS (Parts list on pages 68~77)

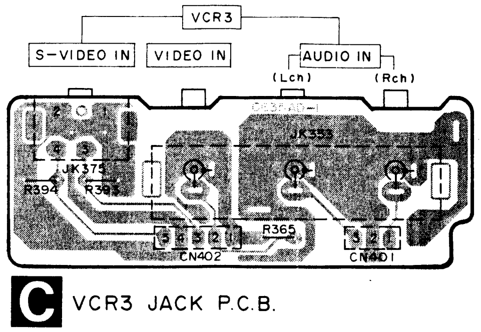

N MAIN P.C.B.
0633AA-1
IC1301
IC601
IC1201
IC504
IC501
IC503
IC502
Q1301
Q605
Q602
Q603
Q604
Q606
Q608
Q607
Q504
Q505
Q502
Q503
Q501
Q506
Q508
Q509
Q510
Q513
CN903
CN704A
CN704B
CN902
CN1001B
CN1001A
CN704C
CN1003
CN901
CN3002B
CN3002A
CN906
CN1002A
CN907
CN1002B
CN503
CN1002C
CN404
CN204
CN701B
CN702

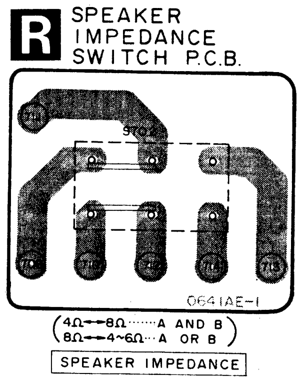

A DIGITAL P.C.B.
IC3101
IC3102
IC3103
IC3011
IC3012
IC3013
IC3014
Q3008
Q3012
Q3010
Q3011
Q3009
Q3109
Q3017
Q3013
Q3110
Q3101
Q3103
Q3104
Q3102
Q3106
Q3105
Q3108
Q3107
Q3015
Q3006
Q3007
D3017
D3018
W3102
W3101

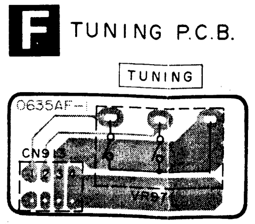

T AC IN / AC OUTLETS P.C.B.
JK793
JK792
JK791
AC IN
(120V,60Hz)
(SWITCHED)
AC OUTLETS
(SWITCHED)
0641AF-1

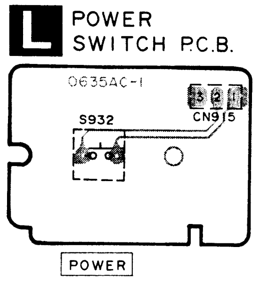

B VIDEO P.C.B.
CN1001
CN1003
CN1002
IC1007
IC1101
IC1102
IC1008
IC1005
IC1006
IC1002
Q1003
Q1006
Q1005
Q1001
Q1002
L1001
L1002
0635AA-1


K REMOTE SENSOR P.C.B.
CN911
D893
STANDBY
REMOTE SENSOR
Z891
0635AI-1

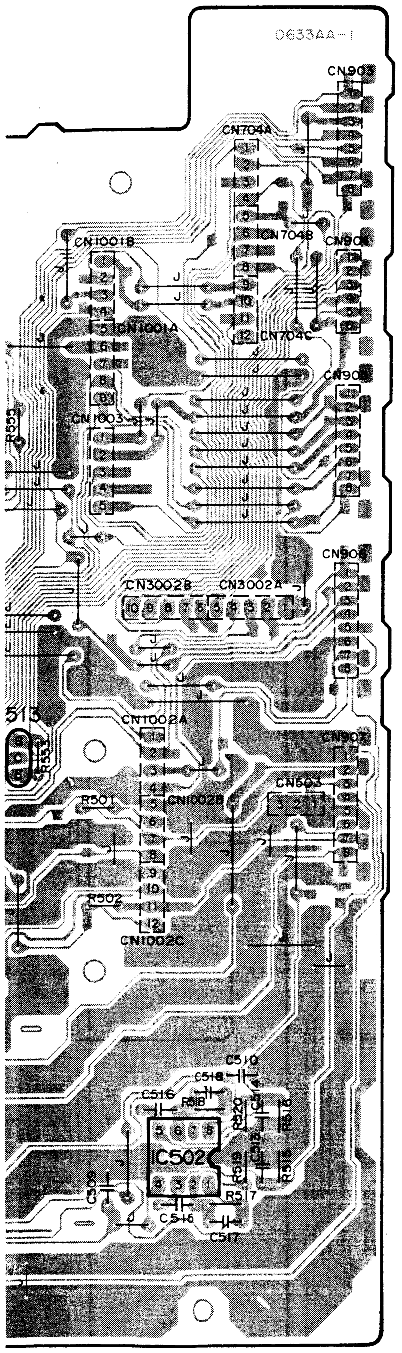

VCR3
S-VIDEO IN
VIDEO IN
AUDIO IN
(Lch)
(Rch)
JK333
JK375
R394
R365
CN402
CN401
C VCR3 JACK P.C.B.


R SPEAKER IMPEDANCE SWITCH P.C.B.
S902
0641AE-1
(4Ω→8Ω······A AND B
8Ω→4~6Ω···A OR B)
SPEAKER IMPEDANCE

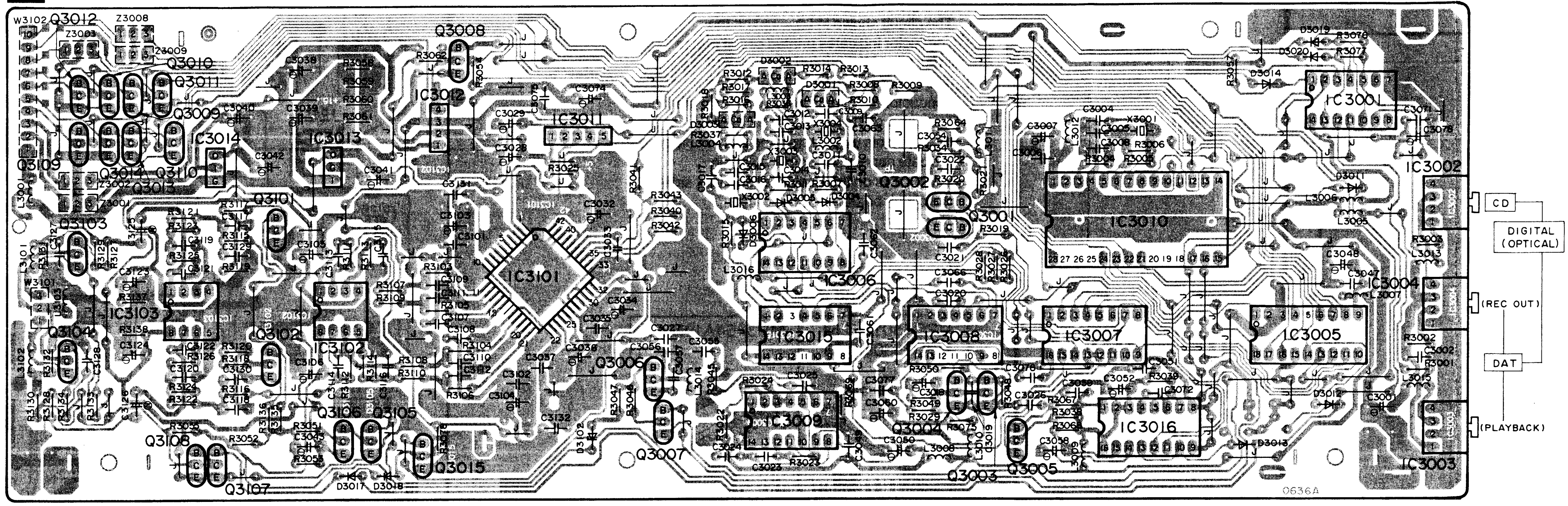

F TUNING P.C.B.
TUNING
0635AF-1
CN913
VR971


L POWER SWITCH P.C.B.
0635AC-1
S932
CN915
POWER

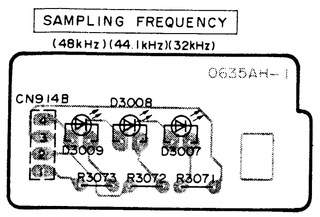
7 8 9 10 11 12 13 14 15 16


0633AA-1
CN903
CN704A
CN1001B
CN704B
CN1001A
CN704C
CN1003
CN3002B
CN3002A
CN1002A
CN1002B
CN503
R501
R502
CN1002C
IC502
R513

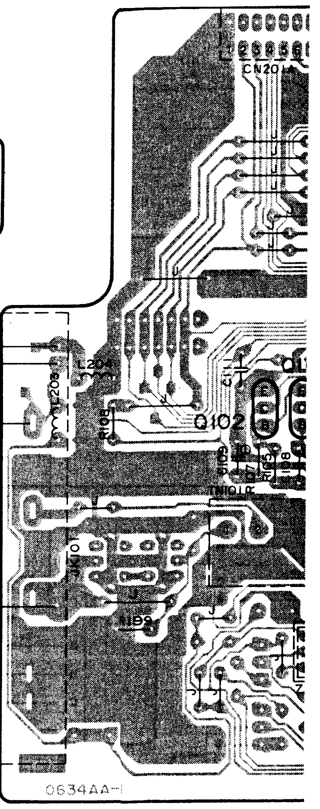
A DIGITAL P.C.B.


Q3012
Q3010
Q3011
Q3009
Q3014
Q3110
Q3013
Q3109
Q3103
Q3104
Q3101
Q3102
Q3106
Q3105
Q3108
Q3107
Q3015
Q3008
IC3012
IC3013
IC3014
IC3011
IC3101
IC3102
IC3103
IC3001
IC3002
IC3003
IC3004
IC3005
IC3006
IC3007
IC3008
IC3009
IC3010
IC3015
IC3016
Q3001
Q3002
Q3003
Q3004
Q3005
Q3006
Q3007
CD
DIGITAL (OPTICAL)
(REC OUT)
DAT
(PLAYBACK)
0636A

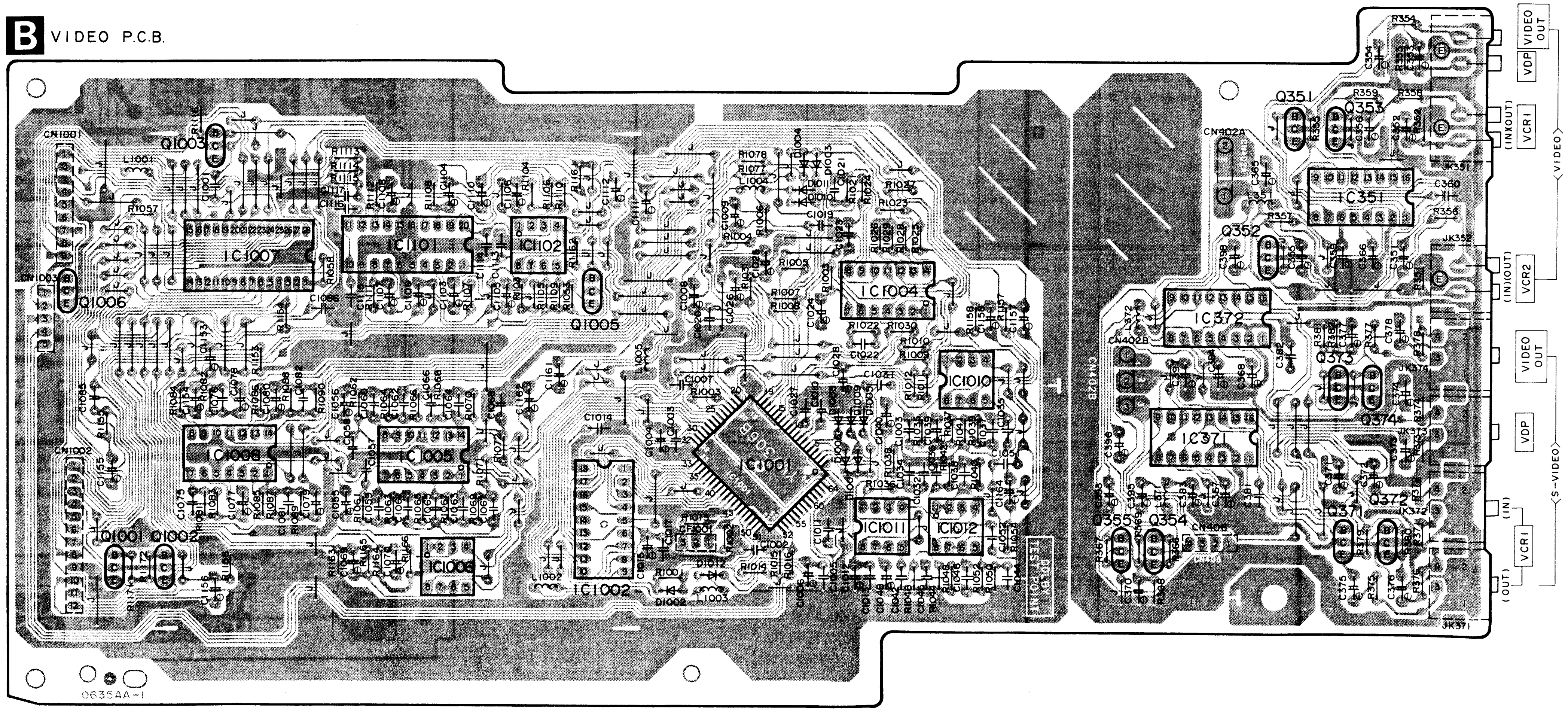
LED P.C.B.


SAMPLING FREQUENCY
(48kHz)(44.1kHz)(32kHz)
0635AH-1
CN914B
D3008
D3009
D3007
R3073
R3072
R3071

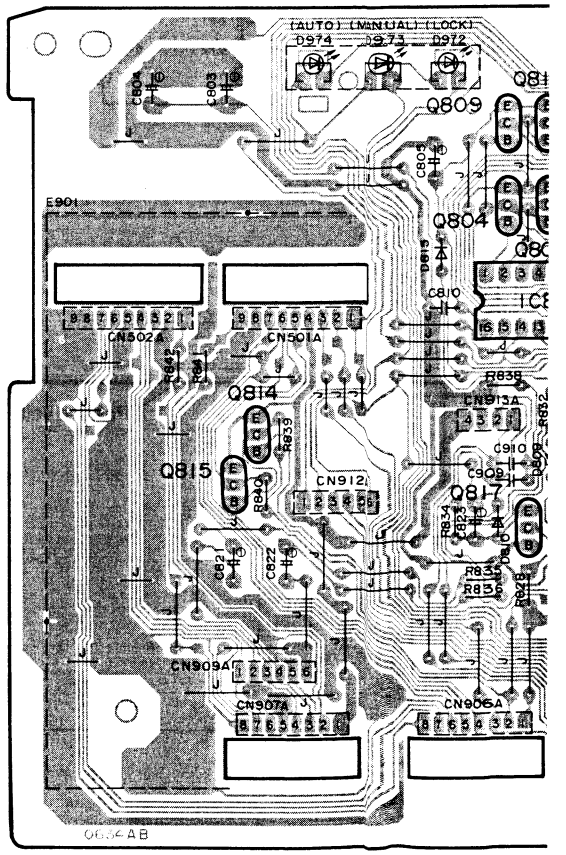
E TUNER P.C.B.


AM LOOP ANT
AM ANT
FM ANT (75Ω)
Q102
0634AA-1

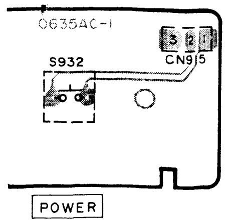
B VIDEO P.C.B.


CN1001
Q1003
Q1006
Q1005
Q1001
Q1002
IC1007
IC1101
IC1102
IC1004
IC1008
IC1005
IC1009
IC1002
IC1001
IC1010
IC1011
IC1012
TEST POINT
Q351
Q353
Q352
Q373
Q374
Q371
Q372
Q355
Q354
IC351
IC372
IC371
CN402A
CN402B
JK351
JK352
JK371
VIDEO OUT
VDP
VCR1
(IN)(OUT)
VCR2
(IN)(OUT)
(VIDEO)
VIDEO OUT
VDP
VCR1
(IN)
(OUT)
(S-VIDEO)
0635AA-1

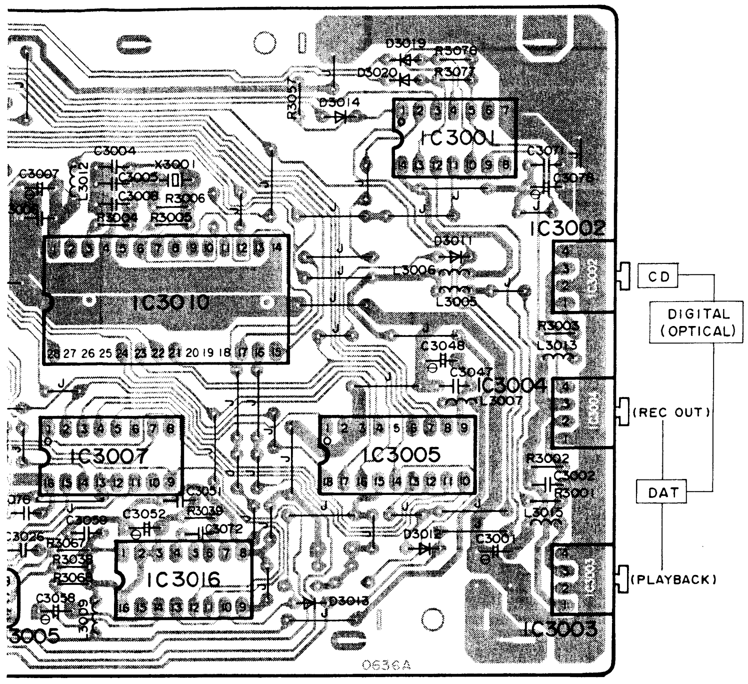
G FL DRIVE P.C.B.


(AUTO) (MANUAL) (LOCK)
D974
D973
D972
Q809
Q804
E901
CN502A
CN501A
Q814
Q815
CN912
CN913A
CN909A
CN907A
CN906A
0634AB

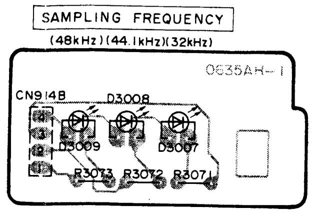
POWER SWITCH P.C.B.


0635AC-1
S932
CN915
POWER

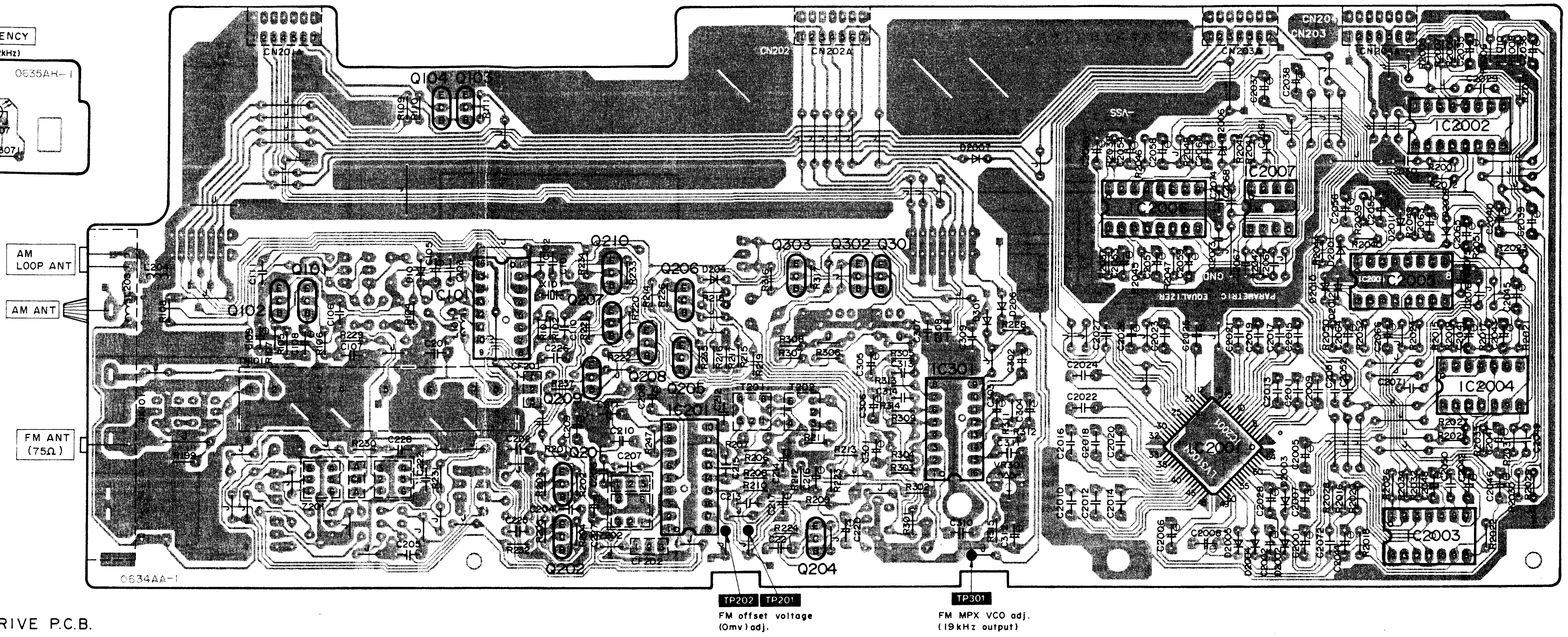
13 14 15 16 17 18 19 20 21 22

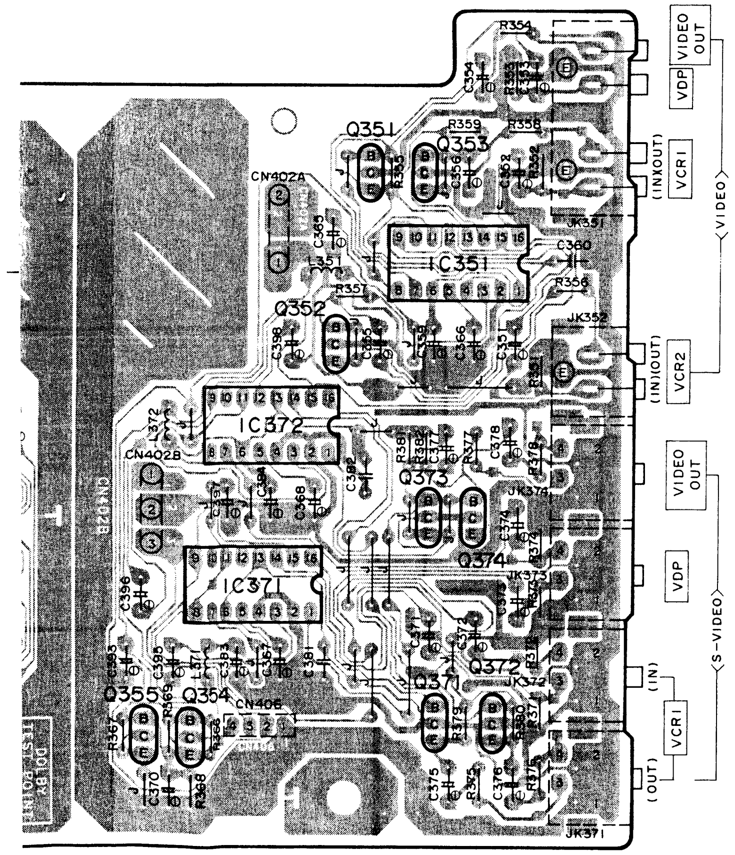

IC3001
IC3002
IC3010
IC3007
IC3005
IC3004
IC3016
IC3003
CD
DIGITAL
(OPTICAL)
(REC OUT)
DAT
(PLAYBACK)
0636A

I LED P.C.B.

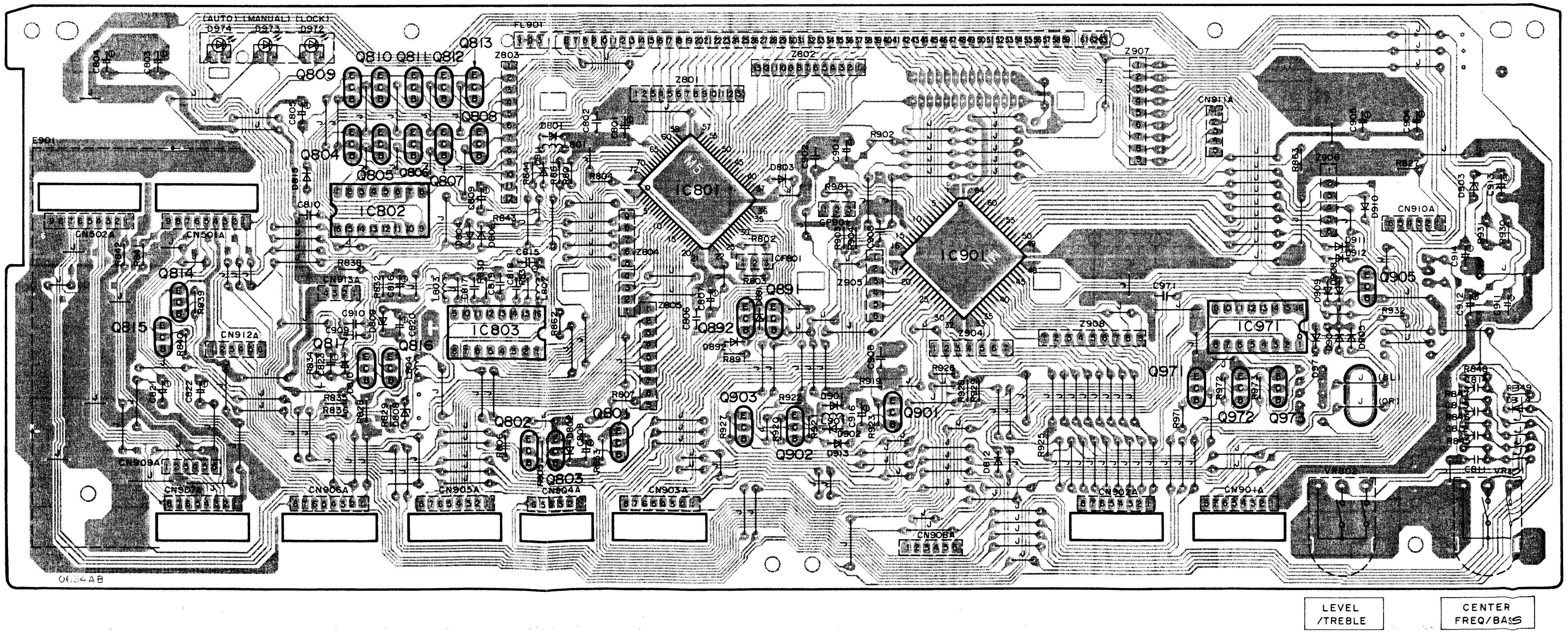

SAMPLING FREQUENCY
(48kHz)(44.1kHz)(32kHz)
0635AH-1
CN9148
D3008
D3009
D3007
R3073
R3072
R3071

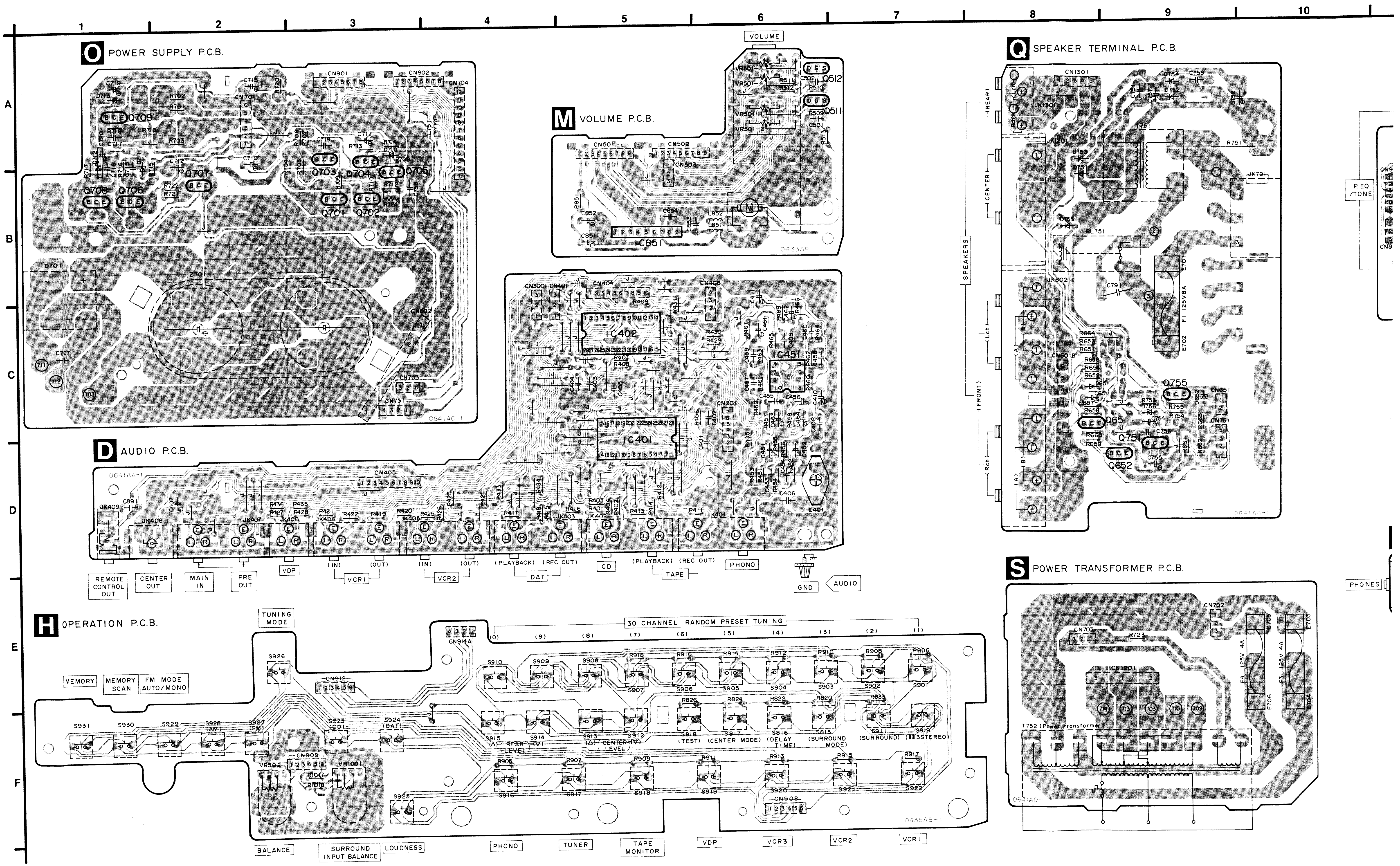
E TUNER P.C.B.


AM LOOP ANT
AM ANT
FM ANT (75Ω)
CN201
CN202
CN202A
CN203
CN204
Q104
Q103
Q101
Q102
Q210
Q206
Q207
Q208
Q209
Q201
Q202
Q204
Q303
Q302
Q301
IC101
IC201
IC301
IC2001
IC2002
IC2003
IC2004
IC2007
PARAMETRIC EQUALIZER
0634AA-1
TP202
TP201
FM offset voltage (0mv) adj.
TP301
FM MPX VCO adj. (19kHz output)

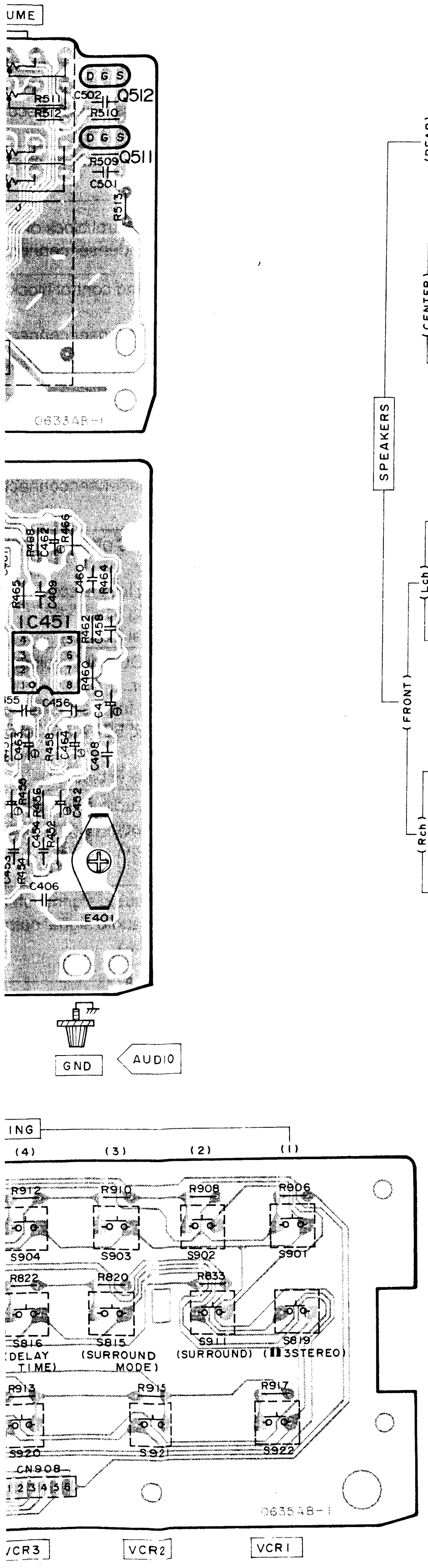

Q351
Q353
Q352
IC351
IC372
IC371
Q373
Q374
Q372
Q371
Q355
Q354
CN402A
CN402B
CN406
JK351
JK352
JK371
VIDEO OUT
VDP
(IN)(OUT)
VCR1
VCR2
<VIDEO>
VIDEO OUT
VDP
(IN)
VCR1
(OUT)
<S-VIDEO>

G FL DRIVE P.C.B.

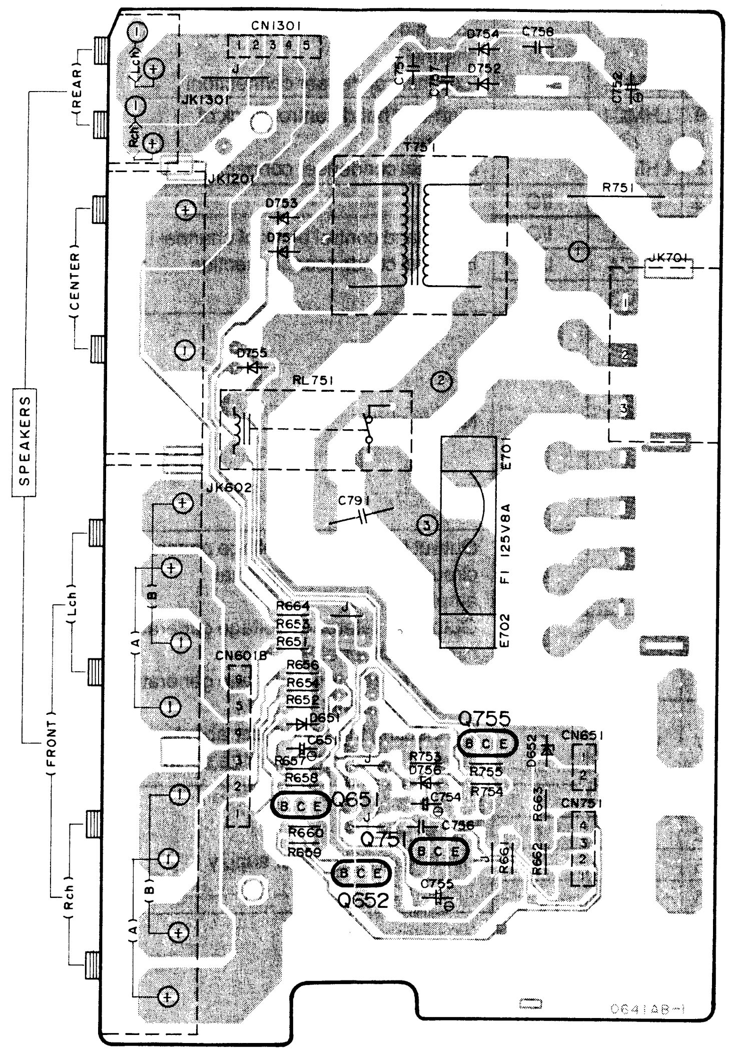

(AUTO) (MANUAL) (LOCK)
D974
D973
D972
FL901
Q810
Q811
Q812
Q813
Q809
Q808
Q804
Q805
Q806
Q807
IC802
IC801
IC901
IC803
IC971
Q814
Q815
Q817
Q816
Q802
Q803
Q801
Q891
Q892
Q903
Q902
Q901
Q905
Q971
Q972
Q973
E901
CN502A
CN501A
CN909A
CN906A
CN905A
CN904A
CN903A
CN908A
CN902A
CN901A
CN910A
CN911A
CN912A
CN913A
0634AB
LEVEL /TREBLE
CENTER FREQ/BASS


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
O POWER SUPPLY P.C.B.
M VOLUME P.C.B.
VOLUME
D AUDIO P.C.B.
H OPERATION P.C.B.
Q SPEAKER TERMINAL P.C.B.
S POWER TRANSFORMER P.C.B.
IC401
IC402
IC451
IC851
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q511
Q512
Q651
Q652
Q751
Q755
REMOTE CONTROL OUT
CENTER OUT
MAIN IN
PRE OUT
VDP
(IN)
(OUT)
VCR1
VCR2
(PLAYBACK)
(REC OUT)
DAT
CD
TAPE
PHONO
GND
AUDIO
TUNING MODE
30 CHANNEL RANDOM PRESET TUNING
(0)
(9)
(8)
(7)
(6)
(5)
(4)
(3)
(2)
(1)
MEMORY
MEMORY SCAN
FM MODE AUTO/MONO
(AM)
(FM)
(CD)
(DAT)
(△) REAR (▽) LEVEL
(△) CENTER (▽) LEVEL
(TEST)
(CENTER MODE)
(DELAY TIME)
(SURROUND MODE)
(SURROUND)
(3STEREO)
BALANCE
SURROUND INPUT BALANCE
LOUDNESS
PHONO
TUNER
TAPE MONITOR
VDP
VCR3
VCR2
VCR1
SPEAKERS
(REAR)
(CENTER)
(FRONT)
(Lch)
(Rch)
(A)
(B)
P.EQ /TONE
PHONES
F1 125V 8A
F4 125V 4A
F3 125V 4A
T752 (Power transformer)
0641AC-1
0633AB-1
0641AA-1
0635AB-1
0641AB-1
0641AD-1

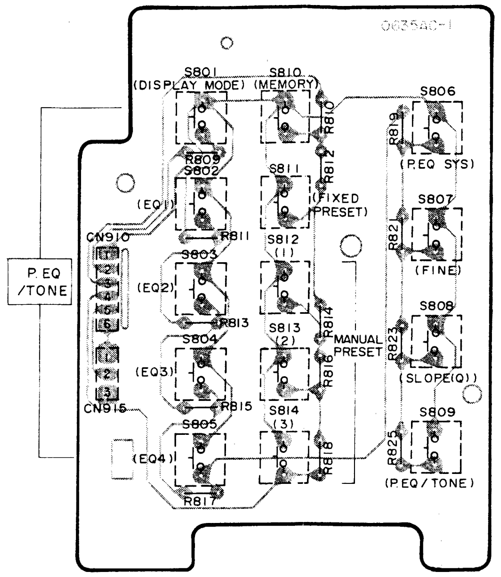
7 8 9 10 11 12


UME
Q512
Q511
R511
R512
R510
R509
C502
C501
R513
0633AB-I
IC451
C456
C408
C406
E401
GND
AUDIO
ING
(4)
(3)
(2)
(1)
R912
R910
R908
R906
S904
S903
S902
S901
R822
R820
R833
S816
S815
S911
S819
(DELAY TIME)
(SURROUND MODE)
(SURROUND)
(⊡⊡ 3STEREO)
R913
R915
R917
S920
S921
S922
CN908
123456
0635AB-I
/CR3
VCR2
VCR1

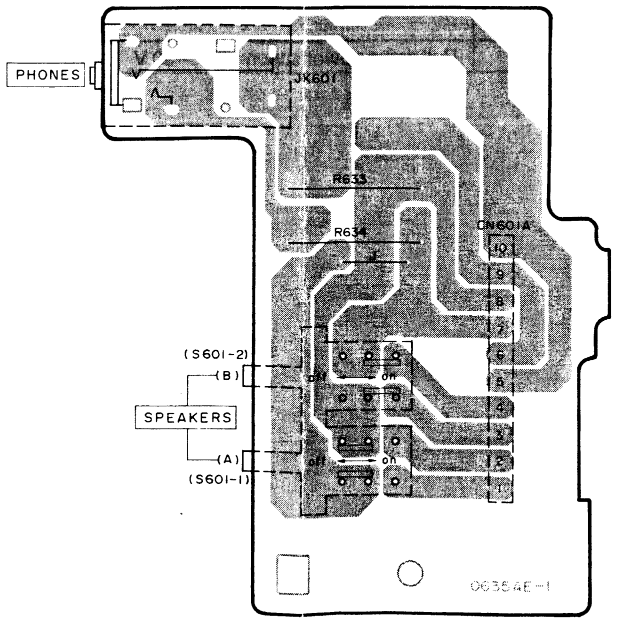
Q SPEAKER TERMINAL P.C.B.


CN1301
JK1301
JK1201
JK602
JK701
D754
C758
D752
D753
D751
D755
T751
R751
RL751
C791
F1 125V8A
E701
E702
CN601B
R664
R653
R651
R656
R654
R652
D651
C651
R657
R658
Q651
Q652
R660
R659
Q755
Q751
R753
D756
C754
R755
R754
C756
C755
R663
R661
R662
D652
CN651
CN751
SPEAKERS
(REAR)
(CENTER)
(FRONT)
(Lch)
(Rch)
(A)
(B)
Lch
Rch
0641AB-I

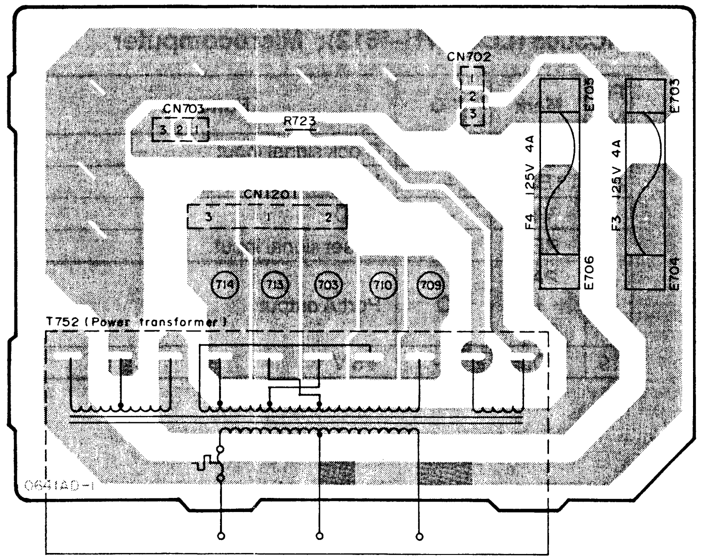
J P.EQ/TONE P.C.B.


P.EQ /TONE
0635AC-I
S801 (DISPLAY MODE)
S810 (MEMORY)
S806
R819
(P.EQ SYS)
R809
S802
(EQ1)
R811
S811
R810
R812
(FIXED PRESET)
S807
R822
(FINE)
S812 (1)
CN910
S803
(EQ2)
R813
S813 (2)
R814
R816
MANUAL PRESET
S808
R823
(SLOPE(Q))
S804
(EQ3)
R815
S814 (3)
S805
(EQ4)
R817
R818
R825
S809
(P.EQ/TONE)
CN915

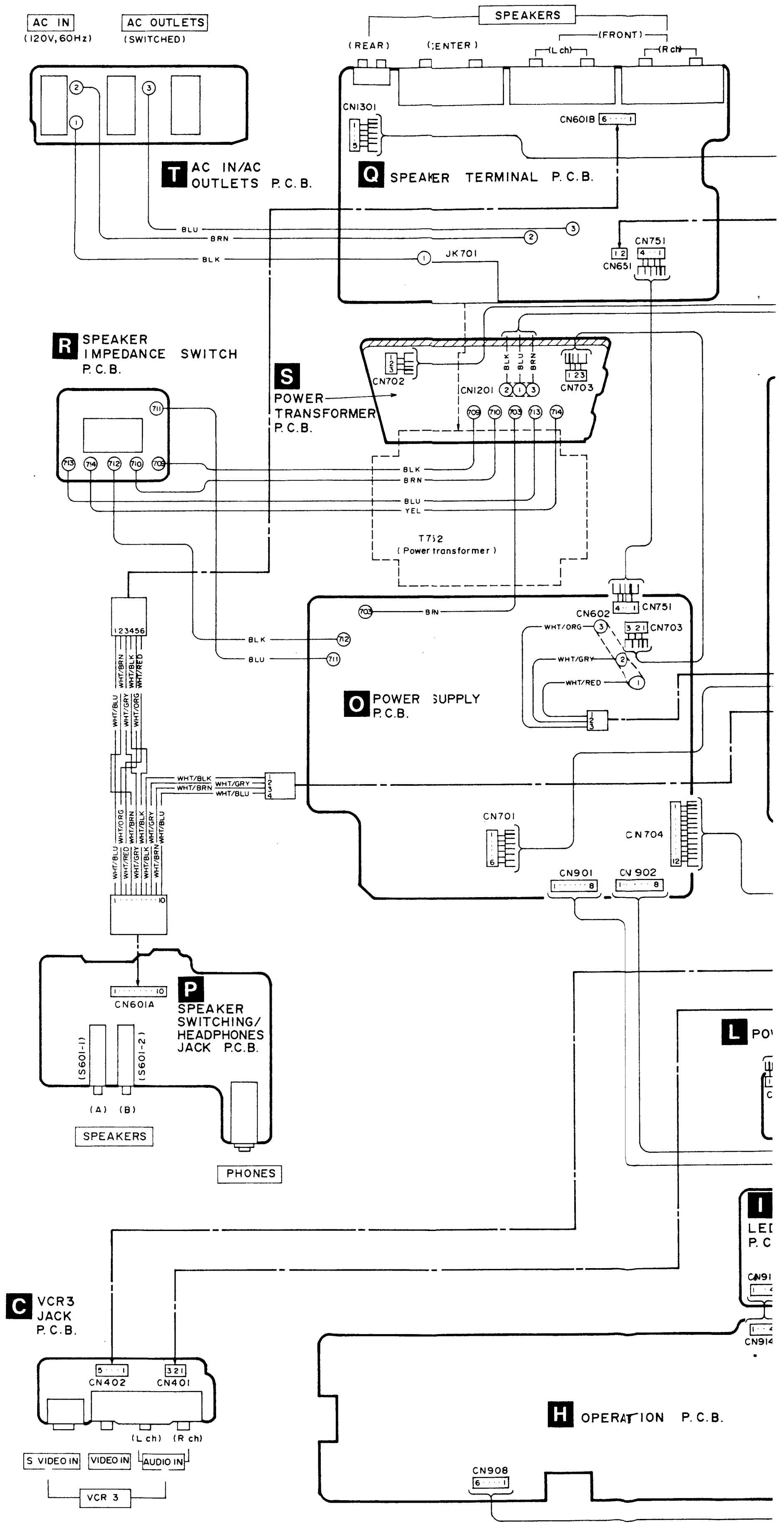
P SPEAKER SWITCH/ HEADPHONES JACK P.C.B.


PHONES
JK601
R633
R634
CN601A
(S601-2)
(B)
SPEAKERS
(A)
(S601-1)
0635AE-I

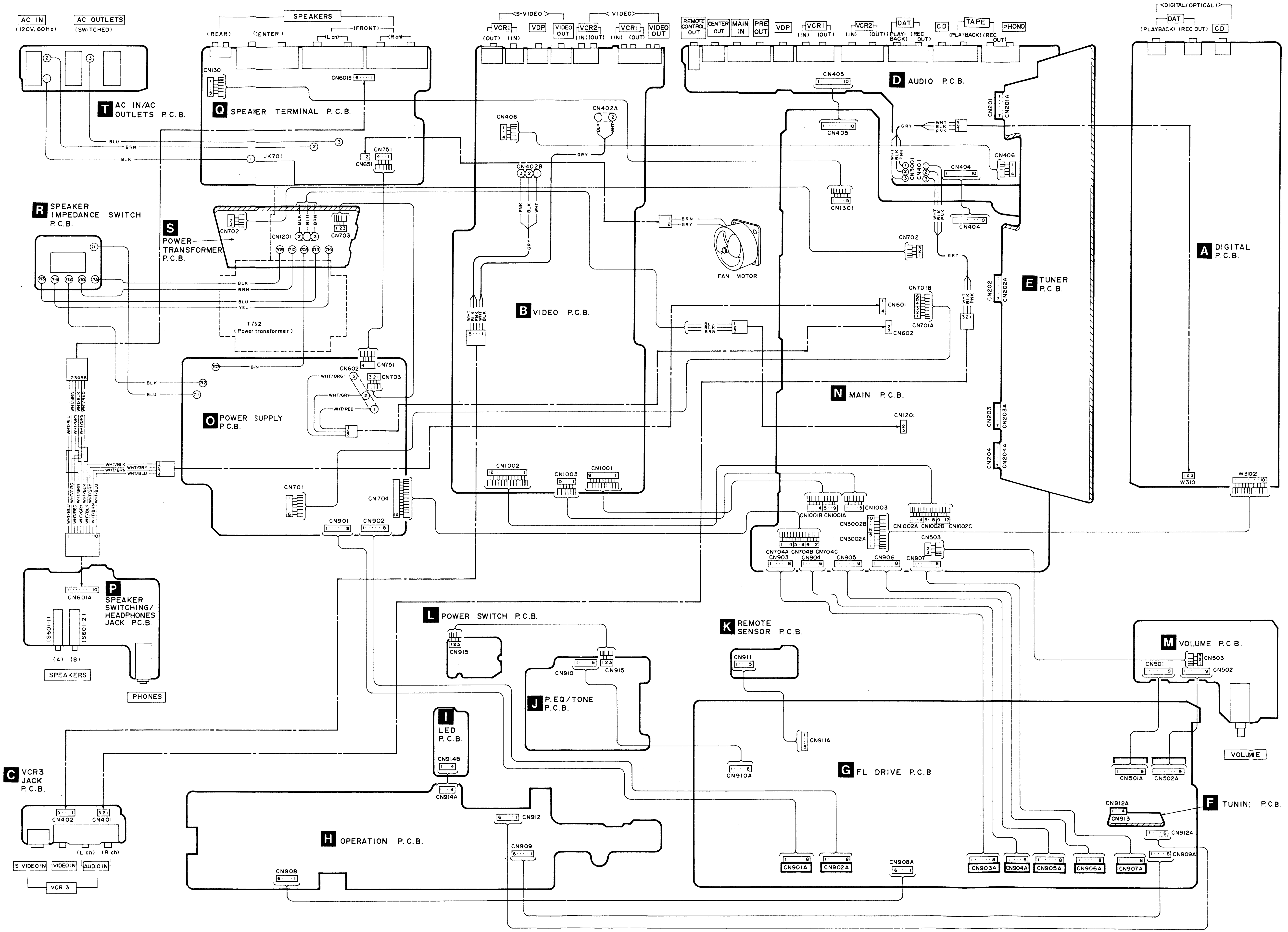
S POWER TRANSFORMER P.C.B.


CN702
CN703
R723
CN1201
F4 125V 4A
F3 125V 4A
E705
E703
E706
E704
714
713
703
710
709
T752 (Power transformer)
0641AD-I

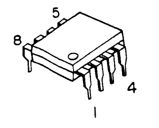
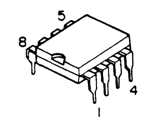
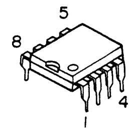
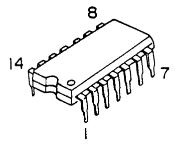
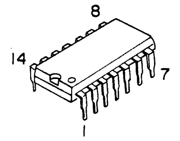
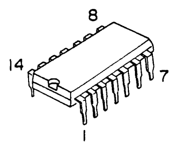
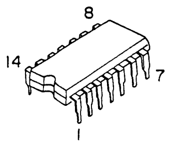
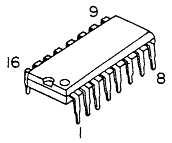
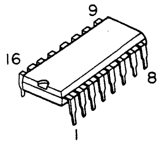
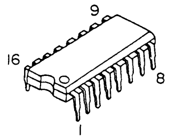
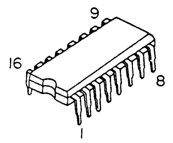
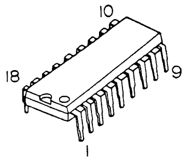
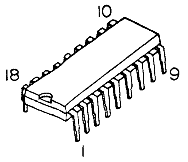
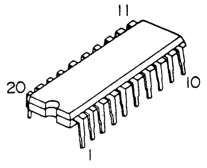
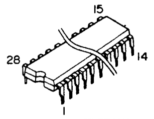
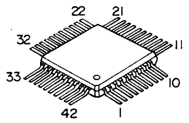
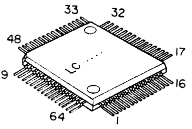
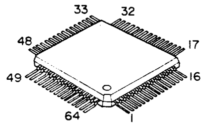
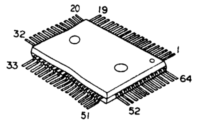
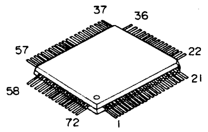
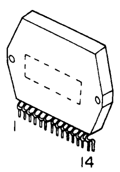
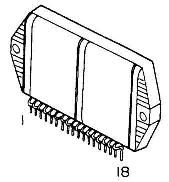
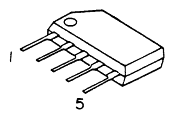
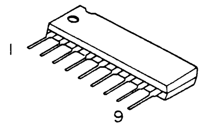
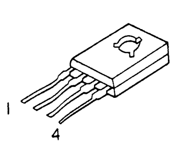
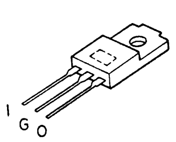
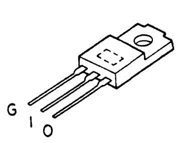
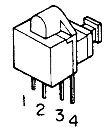
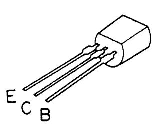
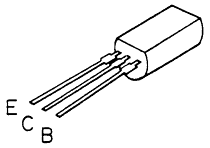
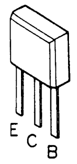
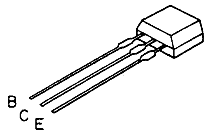
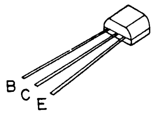
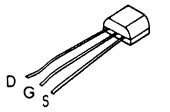
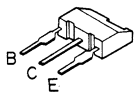
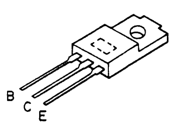
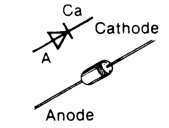
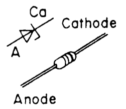
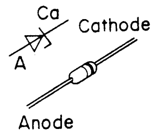
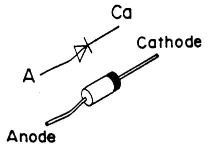
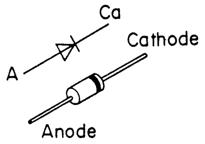
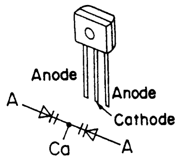
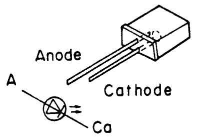
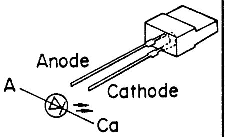
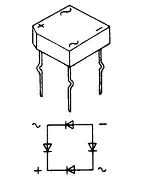
■ WIRING CONNECTION DIAGRAM


AC IN
(120V, 60Hz)
AC OUTLETS
(SWITCHED)
T AC IN/AC OUTLETS P.C.B.
SPEAKERS
(REAR)
(CENTER)
(FRONT)
(L ch)
(R ch)
CN1301
CN601B
Q SPEAKER TERMINAL P.C.B.
BLU
BRN
BLK
JK701
CN751
CN651
R SPEAKER IMPEDANCE SWITCH P.C.B.
S POWER TRANSFORMER P.C.B.
CN702
CN1201
CN703
BLK
BLU
BRN
BLK
BRN
BLU
YEL
T752 (Power transformer)
BRN
BLK
BLU
CN602
CN751
CN703
WHT/ORG
WHT/GRY
WHT/RED
O POWER SUPPLY P.C.B.
WHT/BLK
WHT/BRN
WHT/GRY
WHT/BLU
WHT/RED
WHT/ORG
CN701
CN704
CN901
CN902
CN601A
P SPEAKER SWITCHING/ HEADPHONES JACK P.C.B.
(S601-1)
(S601-2)
(A)
(B)
SPEAKERS
PHONES
L POW
I LED P.C
CN914
C VCR3 JACK P.C.B.
CN402
CN401
(L ch)
(R ch)
S VIDEO IN
VIDEO IN
AUDIO IN
VCR 3
H OPERATION P.C.B.
CN908

■ WIRING CONNECTION DIAGRAM


AC IN (120V, 60Hz)
AC OUTLETS (SWITCHED)
T AC IN/AC OUTLETS P.C.B.
SPEAKERS
(REAR) (CENTER) (FRONT) (L ch) (R ch)
Q SPEAKER TERMINAL P.C.B.
CN1301
CN601B
CN751
CN651
JK701
BLU
BRN
BLK
R SPEAKER IMPEDANCE SWITCH P.C.B.
S POWER TRANSFORMER P.C.B.
CN702
CN1201
CN703
T752 (Power transformer)
BLK BRN BLU YEL
O POWER SUPPLY P.C.B.
CN602
CN751
CN703
CN701
CN704
CN901
CN902
WHT/ORG
WHT/GRY
WHT/RED
WHT/BLK
WHT/BRN
WHT/BLU
P SPEAKER SWITCHING/ HEADPHONES JACK P.C.B.
CN601A
(S601-1) (S601-2)
(A) (B)
SPEAKERS
PHONES
C VCR3 JACK P.C.B.
CN402 CN401
S VIDEO IN VIDEO IN AUDIO IN
(L ch) (R ch)
VCR 3
<S-VIDEO> <VIDEO>
VCR1 VDP VIDEO OUT VCR2 VCR1 VIDEO OUT
(OUT) (IN) (IN) (OUT) (IN) (OUT)
B VIDEO P.C.B.
CN406
CN402A
CN402B
PNK BLK WHT GRY
CN1002
CN1003
CN1001
REMOTE CONTROL OUT
CENTER OUT
MAIN IN
PRE OUT
VDP
VCR1 (IN) (OUT)
VCR2 (IN) (OUT)
DAT (PLAY-BACK) (REC OUT)
CD
TAPE (PLAYBACK) (REC OUT)
PHONO
D AUDIO P.C.B.
CN405
CN406
CN3001
CN4401
CN404
CN1301
CN702
CN601
CN602
CN701B
CN701A
FAN MOTOR
E TUNER P.C.B.
CN201 CN201A
CN202 CN202A
CN203 CN203A
CN204 CN204A
N MAIN P.C.B.
CN1201
CN1001B CN1001A
CN1003
CN3002B
CN3002A
CN1002A CN1002B CN1002C
CN704A CN704B CN704C
CN503
CN903 CN904 CN905 CN906 CN907
<DIGITAL (OPTICAL)>
DAT (PLAYBACK) (REC OUT)
CD
A DIGITAL P.C.B.
W3101
W3102
L POWER SWITCH P.C.B.
CN915
J P. EQ/TONE P.C.B.
CN910
CN915
K REMOTE SENSOR P.C.B.
CN911
CN911A
M VOLUME P.C.B.
CN501 CN502 CN503
VOLUME
I LED P.C.B.
CN914B
CN914A
G FL DRIVE P.C.B.
CN910A
CN501A CN502A
CN912A
CN913
F TUNING P.C.B.
CN912A
CN909A
CN901A CN902A
CN908A
CN903A CN904A CN905A CN906A CN907A
H OPERATION P.C.B.
CN912
CN909
CN908

■ TERMINAL GUIDE OF IC'S TRANSISTORS AND DIODES

M5218AP 	M5238P 	AN6558F SVILM833NA 	AN6554F 	MC74HC86N MC74HC125AN MC74HCU04N 	SN74LS624N 
TC74HC21AP 	AN7470 MC14094BCP 	BA7625 XR-1091DCP 	LM7001 UPC1571C 	TC9214P TC74HC42AP TC74HC123AP 	AN7273A LC6527H-4612 
KM41C464P-10 	TC9212P 	TC9162N TC9163N TC9164N YM3623B 	MN6474  22 21 32 11 33 10 42 1	LV3100M  33 32 48 17 49 16 64 1	MN187125STU  33 32 48 17 49 16 64 1
YM7306B  20 19 32 1 33 64 51 52	M50946-150FP  37 36 57 22 58 21 72 1	SVI3102C 	SVI3206C 	M51953BL 	BA6218 
AN78M05R 	M5F78M12L 	M5F79M12L 	T0RX174-A 	2SA992EFTA 2SB621AQRSTA 2SC1845EFTA 	2SC3940AQSTA 
	2SA1309AQSTA 2SC2785FETA 2SC2787LTA 2SC3311AQSTA 2SD1450RSTTA 2SD1450QRSTA UN4111TA	UN4112TA UN4113TA UN4115TA UN4211TA UN4212TA UN4214TA UN4215TA		2SA933QRSTA 2SA933SQRSTA 2SC1740SQSTA DTC114ESTP DTC144ESTP	2SC3327ABTP 
2SJ40CDTA 	2SB1240PRTV6 	2SB1187DEF 2SD1761DEF 	MA165TA, MA700TA 1SS291TA 1SR35200TB  Ca Cathode A Anode	MA4051MTA MA4056MTA MA4062MTA MA4068MTA  Ca Cathode A Anode	MA4110MTA MA4150MTA MA4240MTA  Ca Cathode A Anode
P300DLF  Ca Cathode A Anode	SVDS2V20  Ca Cathode A Anode	SVC203SSPA-AC  Anode Anode Cathode A Ca A	SVDS10VB20F  Anode A Cathode Ca	LN346GP  Anode A Cathode Ca	LN018304P 

■ FUNCTIONS OF IC TERMINALS

•IC801 (M50946-150FP): Microcomputer

Pin No.	Mark	I/O	Function
1	Vref	—	Power supply +5 V
2	f1	I	Spectrum analizer analog input 63 Hz
3	f2	I	Spectrum analizer analog input 160 Hz
4	f3	I	Spectrum analizer analog input 400 Hz
5	f4	I	Spectrum analizer analog input 1 kHz
6	f5	I	Spectrum analizer analog input 25 kHz
7	f6	I	Spectrum analizer analog input 6.3 kHz
8	f7	I	Spectrum analizer analog input 12.5 kHz
9	KIN	I	Key input (8 bit A/D input)
10	KS1/ DIGA	O	Key output/BCD output for Digit Scan
11	KS2/ DIGA	O	Key output/BCD output for Digit Scan
12	KS3/ DIGA	O	Initial clear output/BCD output for Digit Scan
13	KS4/ DIGA	O	Initial clear output/BCD output for Digit Scan
14	SURSW	I	Input for surround ON/OFF "H"=ON
15	SELMUTE	I	Selector switching muting input "H"=ON
16	EQSW	O	P.EQ Output for ON/OFF "H"=ON
17	DT	O	P.EQ IC/Data output for surround SW
18	CK	O	P.EQ IC/Clock output for surround SW
19	ST	O	Strobe output for surround SW
20	CE	O	Chip enable output for P.EQ IC
21	BCK	O	Bit clock output for surround IC
22	WCK	O	Ward clock output for surround IC
23	CD	O	Serial data output for surround IC
24	NO SIGNAL	I	No signal detection input "H"=No signal
25	HOLD	I	Power off detection input "L"=OFF
26	CNVss	—	GND
27	RESET	I	Reset signal input
28	X in	I	Ceramic oscillator connection (input)
29	X out	O	Ceramic oscillator connection (output)
30	—	—	No use
31	—	—	No use
32	Vss	—	GND
33	—	—	No use
34	LVLA	I	Level encoder volume input A
35	LVLB	I	Level encoder volume input B
36	FRQA	I	Freq. encoder volume input A
37	FRQB	I	Freq. encoder volume input B
38	Vp	I	Pull down voltage input −30 V
39	MUTE	O	Switching muting signal output
40 ~ 62	S23 ~ S1	O	Segment output
63	AVcc	—	Power supply +5 V
64	Vcc	—	Power supply +5 V

•IC901 (MN187125STU): DTS Microcomputer

Pin No.	Mark	I/O	Function
1	V_{DD}	I	Power supply 5 V ±10%
2	OSC2	O	Ceramic oscillator connection (OUT)
3	OSC1	I	Ceramic oscillator connection (IN) 4.19 MHz
4	Vss	I	Vss=0 V
5	XI	I	Connected to Vss
6	XO	O	No use (Open)
7	VIN2	A/DI	Performs the voltage input decision of level 7 by 4 bit A/D input.
8	VIN1		
9	VIN0	A/DI	SD input. 2 steps decision of the existance for a radio station and the stop level while auto searching.
10	P24	CMOSI	For FM stereo detection Active "L"
11	P23	CMOSO	Output for BA6218 control Vol. up at "H"
12	P22	CMOSO	Output for BA6218 control Vol. down at "L"
13	P21	CMOSO	5~6 bit remote output Acitve "L"
14	P20	CMOSO	Strobe output for tuning mode LED decoder ST3.
15	IRQ1	CMOS Internal input rising	Remote control input (interrupt and level detection) Active "L"
16	IRQ0	CMOS Interrupt input rising	Breakdown of electric current detection (Low level detection) Reversion input from breakdown of electric current Breakdown of electric current at "L"
17	P13	CMOSO	Strobe output for TC916XN control ST1
18	P12	CMOSI	Input for power SW Power off "H" Power on "L"
19	P11	CMOSO	Output for relay control Active "H"
20	P10	CMOS	Strobe output for TC9212P control ST2
21	$\overline{RES}$	Pull up R=50K	Reset input Reset at "L"
22	P0S	CMOSO	Serial clock output for LM 7001/ TC916XN/MC14094BCP CK1
23	P04	CMOS	CE for LM7001 CE
24	PO3	CMOSO	Serial data output for LM7001/ TC916XN/MC14094BCP DATA1
25	PO2	CMOSO	Serial clock output for TC9212P/ MC14094BCP CK2
26	PO1	CMOSO	Serial data output for TC9212P/ MC14094BCP DATA2
27	PO0	CMOSO	DAC stop output...710/910 To stop the DAC when except CD and DAT selector. Acgive "H" Image switching output...303/505 Active "H"
28	SYNC	O	No use (Open)
29	CM	I	Connected to Vss
30	P47	Pch open No R	3 stereo input detection port Active "L"
31	P46	Pch open No R	FM forced monaural output Active "H"
32	P45	Pch open No R	Tuner and mute output Active "H"
33	P44	Pch open No R	Rotary and encoder pulse input (Signal A) Active "H"
34	P43	Pch open No R	Rotary and encoder pulse input (Signal B) Active "H"
35 ≀ 37	P42 ≀ P40	Pch open No R	Key output
38 ≀ 45	DGT0 ≀ DGT7	Pch open No R	Digit output for FIP
46	P71	I	Initial clear input
47	P70	I/O	DAC detection input...710/910 Active "L" Surround output...303/505 Active "L"
48	P67	O No R	Output for loudness control Active "H"
49	P66	O No R	Output for amplifier mute Active "H"
50	P65	O No R	Output for attenuator control (−20 dB) Active "H"
51 ≀ 63	SEG12 ≀ SEG0	Pch open No R	Segment output for FIP
64	Vpp	I	Pull down power supply bias −30 V

•IC2001 (LV3100M): Parametric E.Q

Pin No.	Mark	I/O	Function
1 ≀ 4	LLC1 ≀ LLC4	I/O	Low band control block of channel L. External condenser connection.
5 ≀ 8	LLMC1 ≀ LLMC4	I/O	Low-mid band control block of channel L. External condenser connection.
9 ≀ 12	LHMC1 ≀ LHMC4	I/O	High-mid band control block of channel L. External condenser connection.
13	LHC2	I/O	High band control block of channel L. External condenser connection.
14	LHC1	I/O	
19	LHC4	I/O	
20	LHC3	I/O	
15 ≀ 17 31 ≀ 34 54 59	NC	—	No connect
18	Vref	O	Output for reference voltage generate ciroiut of internal operational amplifier. Output for reference voltage generate circuit of channel R. Output for reference voltage generate circuit of channel L. Connecting the condenser about several 10 μF to remove the ripple.
23	Vref R	O	
57	Vref L	O	
21	GND	I	Power supply Connecting the power supply
22	Vcc	I	
25	Vss	I	
28	V_{DD}	I	
37	CE	I	Chip enable Internal analog switch operates to write down the data to internal latch while it will be "L" from "H". The data transmission becomes enable at level "H".
26	DI	I	Input of serial data and clock for control.
24	CL	I	
45 ≀ 48	RLC1 ≀ RLC4	I/O	Low band control block of channel R. External condenser connection.
41 ≀ 44	RLMC1 ≀ RLMC4	I/O	Low-mid band control block of channel R. External condenser connection.
37 ≀ 40	RHMC1 ≀ RHMC4	I/O	High-mid band control block of channel R. External condenser connection.
36	RHC2	I/O	High band control block of channel R. External condenser connection.
35	RHC1		
30	RHC4		
29	RHC3		
61	RCUT2	I/O	Removing DC offset voltage from interral filter. Connecting for the condenser about 10 μF during 61⟷64. (For channel L block)
62	RCUT1		
63	RBOOS2		
64	RBOOS1		
52	RCUT2	I/O	Removing DC offset voltage from internal filter. Connecting for the conderser about/ 10 μF during 52⟷51 and 50⟷49. (For channel R block)
51	RCUT1		
50	RBOOS2		
49	RBOOS1		
60	L IN	I	Channel L audio signal input. Channel R audio signal input. (Receive for low load capacity.)
53	R IN	I	
58	L OUT	O	Channel L audio signal output. Channel R audio signal output. (Receive for low load capacity.)
55	R OUT	O	
56	MIX OUT	O	L and R addition output

•IC3005 (LC6527H-4612): Microcomputer

Pin No.	Mark	I/O	Function
1	OSC1	I	Clock signal input
2	TEST	—	Not used connect to GND
3	Vss	—	GND
4	RES	I	Reset signal input
5 ≀ 8	PA0 ≀ PA3	O	Port A output
9	VDD	—	+5 V
10 ≀ 13	PC0 ≀ PC3	O	Port C output
14 ≀ 17	PD0 ≀ PD3	O	Port D output
18	PH0	—	GND

•IC1001 (YM7306B): D.S.P.

Pin No.	Mark	I/O	Function
1	AVDD	I	Power supply (+5 V)
2	SL	O	Rear surround L ch D/A output
3	LS	O	Front L ch D/A output
4	CHL	—	—
5	LINS	I	L ch A/D input
6	RINS	I	R ch A/D input
7	CHR	—	—
8	RS	O	Front R ch D/A output
9	SR	O	Rear surround R ch D/A output
10	CV	O	Center voltage output for multiply DAC
11, 12	A GND	—	For ground connection
13	VREF	I	Reference voltage input for multiply DAC
14	LINM	I	L ch multiply DAC input
15	RINM	I	R ch multiply DAC input
16	VRL	I	Reference voltage input for multiply DAC
17	VOLM	O	L ch buffer amp output
18	VOLP	O	L ch buffer amp output
19	VRC	I	Reference voltage input for multiply DAC
20	VOCM	O	Center ch output
21	VOCP	O	Center ch output
22	VRR	I	Reference voltage input
23	VORM	O	R ch output
24	VORP	O	R ch output
25	AVDD	I	Power supply (+5 V)
26	DVDD	I	Power supply (+5 V)
27 ≀ 34	A7 ≀ A0	O	Address output
35	RAS	O	Address strobe output
36	CAS	O	Address strobe output
37	WE	O	Write enable output
38	OE	O	Enable output
39 ≀ 42	D4 ≀ D1	I/O	Data
43, 44	DGND	—	For GND
45	X0	O	Clock output
46	X0	I	Clock input (8.4672 MHz)
47	SYNCI	I	For VDD connection
48	SYNCO	—	—
49	IC	I	Initial clear input
50	OVF	—	—
51	BCK	I	Pit clock input
52	WCK	I	Ward clock input
53	CD	I	Serial data input
54	NTR	I	For VDD connection
55	NTR SEL		
56	NOISE		
57	MCON		
58	DVDD		
59	PHANTOM		
60	COFF		
61	STROFF		
62	SSTROFF		
63	TSBWD		
64	TI/O		

•IC3010 (YM3623B): Digital signal processor

Pin No.	Mark	I/O Division	Function
1	VDD1	I	Power supply terminal
2	ADJ	–	(Not used, open)
3	VCO	I/O	External condenser terminal
4	VSS2	–	GND terminal
5	XO	O	Crystal vibrator input/output terminal
6	XI	I	
7	$\overline{\text{KMODE}}$	I	Reset signal
8	OA	–	(Not used, open)
9	OB		
10	$\overline{\text{TI}}$	–	(Not used, open)
11	$\overline{\text{T2}}$		
12	BCO	O	Serial bit clock output
13	$\overline{\text{SYNC}}$	O	Synchronization signal (Not used, open)
14	Vss1	–	GND terminal
15	L/R	O	L/R discrimination signal
16	DEF	O	Emphasis signal
17	DO	O	Serial data output
18	WC	–	(Not used, open)
19	DIGR		
20	DIG L		
21	ERR	O	Error detection terminal
22	SEL	I	Power supply terminal
23	S1	O	VCXO control signal and LED drive signal output
24	S2		
25	SCK	O	Sub code clock signal output (Not used, open)
26	SSYNC	O	Sub code signal (Not used, open)
27	SDO	O	Sub code data output (Not used, open)
28	DIN	I	Serial data input

■ FUNCTIONS OF IC TERMINALS

•IC1 (UPD75308F478): Microcomputer

Pin No.	Mark	I/O Division	Function
69 ≀ 80 1 ≀ 20	S0 ≀ S31	O	LCD segment drive control
21 ≀ 24	COM0 ≀ COM3	O	LCD common drive control
25 26 ≀ 28	BIAS VLC0 ≀ VLC2	I/O	LCD bias voltage
29 ≀ 32 34 ≀ 37	P40 ≀ P43 P50 ≀ P53	O	Key scan signal output
38	P00	I	Microcomputer reset Timing detection.
39	P01	I	Test point
40 41 42	P02 P03 P10	I	Not used (Connected to VDD)

Pin No.	Mark	I/O Division	Function
43	P11	I	Interrupt from IC2
44 45	P11 P12	I	Not used (Connected to VDD)
46 ≀ 48	P20 ≀ P22	O	Control terminal for IC 2
49	P23	O	Address latch enable terminal for IC2
50 ≀ 53	P30 ≀ P33	O	S-RAM host address (AD8~ADB)
55 56	XT1 XT2	—	Sub-clock (32.768 kHz)
58 59	X1 X2	—	Main-clock (4 MHz)
60 ≀ 67	P60 ≀ P73	I/O	Exchange data with IC2
68	RESET	I	Microcomputer reset

•IC2 (UPD65012F251): Learning digital processor

Pin No.	Mark	I/O Division	Function
1 ≀ 8	ID7 ≀ ID0	I/O	Exchange data with microcomputer
9 10 11	IENN IWIN IRDN	I	Control signal input from microcomputer
13 ≀ 20	IP30 ≀ IP37	I	Key scan signal input
21 ≀ 28 29 30 ≀ 32 35 ≀ 38	IP40 ≀ IP47 KINT IP50 ≀ IP56	I	Not used (Connected to VDD)
39	REC	I	Remote controller signal input
40 41 42	PD0 WT0 OCE	O	S-RAM control
43 ≀ 50	OD0 ≀ OD7	I/O	Exchange data with S-RAM

Pin No.	Mark	I/O Division	Function
51 52 54 ≀ 59	AD0 ≀ AD7	O	S-RAM subordinate address (AD0~AD7)
60 ≀ 63	AD8 ≀ ADB	O	S-RAM host address (AD8~ADB)
64	OUTP	O	Not used
65	RM0	O	Remote controller signal output
66	OP60	O	Remote controller receiving section ON/OFF switches
67 ≀ 70 73 ≀ 75	OP61 ≀ OP67	O	Not used
76	CLR	I	Reset
77	ICLK	I	Clock signal input
78	RES	I	Not used
79	INT	O	Interrupt output to microcomputer
80	IALE	I	Address latch enable input

■ REPLACEMENT PARTS LIST

Notes : • Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
• The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
• Remote Control Ass'y:
Supply period for three years from termination of production.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC101	LM7001	I.C, PLL FREQ. SYNTHESIZER	
IC201	AN7273A	I.C, FM/AM IF AMP&MIXER	
IC301	SVIUPC1161C3	I.C, FM MPX	
IC351	BA7625	I.C, VIDEO SIGNAL SELECTOR	
IC371, 372	BA7625	I.C, VIDEO SIGNAL SELECTOR	
IC401	TC9163N	I.C, INPUT SELECTOR	
IC402	TC9164N	I.C, ANALOG FAN	
IC451	AN6558F	I.C, PHONO EQ AMP.	
IC501-503	M5238P-1	I.C, BUFFER AMP.	
IC504	M5218AP	I.C, BUFFER AMP.	
IC601	SVI3206C	I.C, POWER AMP.	⚠
IC801	M50946-150FP	I.C, MICROCOMPUTER	
IC802	TC74HC42AP	I.C, FL DRIVE	
IC803	XR-1091DCP	I.C, B.P.F.	
IC851	BA6218	I.C, MOTOR DRIVE	
IC901	MN187125STU	I.C, DTS MICROCOMPUTER	
IC971	MC14094BCP	I.C, SURROUND CONTROL	
IC1001	YM7306B	I.C, D.S.P.	
IC1002	KM41C464P-10	I.C, D.RAM	
IC1004	AN6554F	I.C, B.P.F.	
IC1005	AN6554F	I.C, B.P.F.	
IC1006	M5218AP	I.C, BUFFER AMP.	
IC1007	TC9162N	I.C, EQ. SELECTOR	
IC1008	AN6554F	I.C, BUFFER AMP.	
IC1010	M5238P-1	I.C, BUFFER AMP.	
IC1011	M5238P-1	I.C, BUFFER AMP.	
IC1012	M5218AP	I.C, BUFFER AMP.	
IC1101	TC9212P	I.C, ATT/VOLUME CONTROL	
IC1102	M5218AP	I.C, BUFFER AMP.	
IC1201	SVI3206C	I.C, POWER AMP.	⚠
IC1301	SVI3102C	I.C, POWER AMP.	⚠
IC2001	LV3100M	I.C, RARAMETRIC EQ.	
IC2002	TC9214P	I.C, ANALOG SWITCHER	
IC2003	AN6554F	I.C, BUFFER AMP.	
IC2004	AN6554F	I.C, BUFFER AMP.	
IC2005	UPC1571C	I.C, OPE AMP.	
IC2006	UPC1571C	I.C, OPE AMP.	
IC2007	AN6558F	I.C, BUFFER AMP.	
IC3001	MC74HC125AN	I.C, BUFFER AMP.	
IC3002	TORX174-A	I.C, DIGITAL INPUT(OPTICAL)	
IC3003	TORX174-A	I.C, DIGITAL INPUT(OPTICAL)	
IC3004	TOTX174-A	I.C, DIGITAL INPUT(OPTICAL)	
IC3005	LC6527H-4612	I.C, MICROCOMPUTER	

Ref. No.	Part No.	Part Name & Description	Remarks
IC3006	MC74HCU04N	I.C, INVERTER	
IC3007	LM7001	I.C, PLL FREQ. SYNTHESIZER	
IC3008	SN74LS624N	I.C, VCO	
IC3009	MC74HC86N	I.C, EXCLUSIVE OR GATE	
IC3010	YM3623B	I.C, D.SIGNAL PROCESSOR	
IC3011	M51953BL	I.C, RESET	
IC3012	AN78M05R	I.C, REGULATOR	
IC3013	M5F78M12L	I.C, REGULATOR	
IC3014	M5F79M12L	I.C, REGULATOR	
IC3015	TC74HC21AP	I.C, FL DRIVE	
IC3016	TC74HC123AP	I.C, FLIP FLOP	
IC3101	MN6474	I.C, DIGITAL FILTER & D/A C.	
IC3102	SVILM833NA	I.C, LPF	
IC3103	SVILM833NA	I.C, LPF	
		TRANSISTOR(S)	
Q101, 102	2SC2785FE	TRANSISTOR	
Q103, 104	UN4214TA	TRANSISTOR	
Q201, 202	2SC2787L	TRANSISTOR	
Q204-207	2SC1740SQ	TRANSISTOR	
Q208, 209	2SA933SQR	TRANSISTOR	
Q210	2SC1740SQ	TRANSISTOR	
Q301, 302	2SD1450QRSTA	TRANSISTOR	
Q303	2SA933SQR	TRANSISTOR	
Q351-353	2SA933QRSTA	TRANSISTOR	
Q354	2SB1240PRTV6	TRANSISTOR	
Q355	2SC1740SQ	TRANSISTOR	
Q371-374	2SA933QRSTA	TRANSISTOR	
Q501-504	2SC3327-A	TRANSISTOR	
Q505, 506	2SA1309A-R	TRANSISTOR	
Q507	2SC3327-A	TRANSISTOR	
Q508	UN4211	TRANSISTOR	
Q509, 510	2SC3311A-Q	TRANSISTOR	
Q511, 512	2SJ40CDTA	TRANSISTOR	
Q513	2SC3311A-Q	TRANSISTOR	
Q601-608	2SC1845EFTA	TRANSISTOR	
Q609	2SA992EFTA	TRANSISTOR	
Q651	2SA1309A-R	TRANSISTOR	
Q652	2SC3311A-Q	TRANSISTOR	
Q701, 702	2SD1761DEF	TRANSISTOR	⚠
Q703	2SC3311A-Q	TRANSISTOR	⚠
Q704	2SC3311A-Q	TRANSISTOR	
Q705	2SC3311A-Q	TRANSISTOR	⚠
Q706	2SD1761DEF	TRANSISTOR	
Q707	2SA1309A-R	TRANSISTOR	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
Q708	2SB1187DEF	TRANSISTOR	⚠
Q709	2SB621A-R	TRANSISTOR	
Q751	2SC3940AQSTA	TRANSISTOR	
Q755	2SC3311A-Q	TRANSISTOR	
Q801	UN4214TA	TRANSISTOR	
Q802	UN4211	TRANSISTOR	
Q803	UN4111	TRANSISTOR	
Q804-813	UN4115	TRANSISTOR	
Q814-816	UN4211	TRANSISTOR	
Q817	UN4111	TRANSISTOR	
Q891	UN4113TA	TRANSISTOR	
Q892	UN4214TA	TRANSISTOR	
Q901	UN4214TA	TRANSISTOR	
Q902	2SA933SQR	TRANSISTOR	
Q903	UN4211	TRANSISTOR	
Q905	UN4111	TRANSISTOR	
Q971-973	UN4215	TRANSISTOR	
Q1001, 1002	2SC3327-A	TRANSISTOR	
Q1003	2SA933SQR	TRANSISTOR	
Q1005	2SC3327-A	TRANSISTOR	
Q1006	DTC114ESTP	TRANSISTOR	
Q1201	2SC3327-A	TRANSISTOR	
Q1202	2SA1309A-R	TRANSISTOR	
Q1203	2SA992EFTA	TRANSISTOR	
Q1301	2SC3327-A	TRANSISTOR	
Q3001-3005	2SC3311A-Q	TRANSISTOR	
Q3006	2SD1450RTA	TRANSISTOR	
Q3007	UN4112	TRANSISTOR	
Q3008	UN4212TA	TRANSISTOR	
Q3009	UN4112	TRANSISTOR	
Q3010	UN4212TA	TRANSISTOR	
Q3011	UN4112	TRANSISTOR	
Q3012	UN4212TA	TRANSISTOR	
Q3013	UN4112	TRANSISTOR	
Q3014, 3015	UN4212TA	TRANSISTOR	
Q3101-3104	2SC3327-A	TRANSISTOR	
Q3105	UN4212TA	TRANSISTOR	
Q3106	UN4112	TRANSISTOR	
Q3107	UN4212TA	TRANSISTOR	
Q3108	UN4112	TRANSISTOR	
Q3109	UN4212TA	TRANSISTOR	
Q3110	DTC144ESTP	TRANSISTOR	
		DIODE(S)	
D101	MA165	DIODE	
D204	MA165	DIODE	
D206	MA165	DIODE	
D301	MA165	DIODE	
D501	MA700	DIODE	
D601-603	MA165	DIODE	
D651	MA165	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D652	MA4068M	DIODE	
D701	SVDS10VB20F	DIODE	⚠
D702-705	SVDS2V20	DIODE	⚠
D706-709	P300DLF	DIODE	⚠
D710	MA4062MTA	DIODE	
D711	MA4068M	DIODE	
D712	MA4150M	DIODE	
D713	MA4240H	DIODE	
D751-754	1SR35200TB	DIODE	⚠
D755	MA165	DIODE	
D756	MA4068M	DIODE	
D801	1SS291TA	DIODE	
D802, 804	MA165	DIODE	
D806	MA165	DIODE	
D808, 809	MA4062MTA	DIODE	
D810-812	MA165	DIODE	
D814, 815	MA165	DIODE	
D891, 892	MA165	DIODE	
D893	LN018304P	DIODE	
D901	1SS291TA	DIODE	
D902	MA165	DIODE	
D903	MA4056MTA	DIODE	
D904, 905	MA165	DIODE	
D908-913	MA165	DIODE	
D971	MA165	DIODE	
D1002	MA165	DIODE	
D1003-1011	MA700	DIODE	
D1012	MA165	DIODE	
D1201	MA165	DIODE	
D2001	MA4110MTA	DIODE	
D2002-2005	MA165	DIODE	
D2006	MA4110MTA	DIODE	
D2007	MA165	DIODE	
D2009-2012	MA700	DIODE	
D3001-3003	SVC203SPA-AC	DIODE	
D3004-3006	MA165	DIODE	
D3007-3009	LN346GP	DIODE	
D3011-3014	MA165	DIODE	
D3017-3020	MA165	DIODE	
D3102	MA4051TA	DIODE	
		VARIABLE RESISTOR(S)	
VR301	EVNDXAA00B53	V. R, FM MPX VCO ADJ.	
VR501	EUWMJTF25B15	V. R, MAIN VOLUME	
VR502	EVJ02SF01G15	V. R, BALANCE	
VR801	EVQWQ202224B	V. R, CENTER FREQ. /BASS	
VR802	EVQWQ202224B	V. R, LEVEL/TREBLE	
VR971	EVQWX902612B	V. R, ROTARY TUNING	
VR1001	EVJ02SF01G15	V. R, SURROUND BALANCE	
		COMPONENT COMBINATION(S)	

Ref. No.	Part No.	Part Name & Description	Remarks
Z201	RLA2Z001-T	COMPONENT COMBINATION	
Z202	SLI7Z101-T	COMPONENT COMBINATION	
Z701	ECED71T153U	COMPONENT COMBINATION	⚠
Z801, 802	EXFP12331MF	COMPONENT COMBINATION	
Z803	EXBF12E104J	COMPONENT COMBINATION	
Z804, 805	EXBF9E473J	COMPONENT COMBINATION	
Z891	HC-521	REMOTE SENSOR	
Z904	EXBF7E103J	COMPONENT COMBINATION	
Z905	EXBF6E103J	COMPONENT COMBINATION	
Z906	EXBF6E104J	COMPONENT COMBINATION	
Z907	EXFP8331MW	COMPONENT COMBINATION	
Z908	EXBF9E104J	COMPONENT COMBINATION	
Z3001-3003	EXCEMT103DTB	COMPONENT COMBINATION	
Z3008, 3009	EXCEMT103DTB	COMPONENT COMBINATION	
TN101	SNVFE337G01	FM FRONT END	
		COIL(S)	
L101	RLQZPR47KT-Y	COIL	
L203, 204	ELEPK1R0MA	COIL	
L351	ELEPK101KA	COIL	
L371, 372	ELEPK101KA	COIL	
L601, 602	SLQY07G-40	COIL	
L751	ELEPK101KA	COIL	
L801	RLQZP101KT-Y	COIL	
L802-804	RLQZP4R7KT-Y	COIL	
L851, 852	RLQZP1R0KT-Y	COIL	
L901	ELEPK101KA	COIL	
L1001-1004	RLQZP101KT-Y	COIL	
L1005	ELEPK101KA	COIL	
L1201	SLQY07G-40	COIL	
L1301, 1302	SLQY07G-40	COIL	
L3001	ELEPK470KA	COIL	
L3002	ELEXT220JA	COIL	
L3003	ELEXT6R8JA	COIL	
L3004	ELEXT100JA	COIL	
L3005-3013	ELEXT470KA9	COIL	
L3014	ELEXTR22KA	COIL	
L3015, 3016	ELEXT470KA9	COIL	
L3101, 3102	ELEXT4R7KA9	COIL	
L3103	ELEPKR22KA	COIL	
		TRANSFORMER(S)	
T201	RLI4B002-Z	TRANSFORMER	
T202	RLI4B003-Z	TRANSFORMER	
T701	RTP1R5C001-W	POWER TRANSFORMER	⚠
T751	RTP1H5C001-V	POWER TRANSFORMER	⚠
		FILTER(S)	

Ref. No.	Part No.	Part Name & Description	Remarks
CF201, 202	RLFETNGM02L	CERAMIC FILTER	
CF801	EF0GC6004T4	CERAMIC FILTER	
CF901	EF0GC4194T4	CERAMIC FILTER	
CF1001	EF0GC8464T4	CERAMIC FILTER	
		OSCILLATOR(S)	
X101	SVQ49U722-S	OSCILLATOR	
X3001	SVQAT1693A	OSCILLATOR	
X3002	RSXA16M9S01	OSCILLATOR	
X3003	RSXA18M4S01	OSCILLATOR	
X3004	RSXA12M2S01	OSCILLATOR	
		DISPLAY	
FL901	RSL0089-F	DISPLAY	
		FUSE(S)	
F1	XBA1F80NU14	FUSE, 125V 8A	⚠
F3, 4	XBA1F40NU14	FUSE, 125V 4A	⚠
		SWITCH(ES)	
S601	RSP2007-J	SW, SPEAKER SELECTOR	
S702	RSS3B004S	SW, IMPEDANCE SELECTOR	⚠
S801	EVQ21405R	SW, DISPLAY MODE	
S802	EVQ21405R	SW, P. EQ. 1	
S803	EVQ21405R	SW, P. EQ. 2	
S804	EVQ21405R	SW, P. EQ. 3	
S805	EVQ21405R	SW, P. EQ. 4	
S806	EVQ21405R	SW, P. EQ. SYSTEM ON/OFF	
S807	EVQ21405R	SW, FINE	
S808	EVQ21405R	SW, SLOPE(Q)	
S809	EVQ21405R	SW, P. EQ. /TONE	
S810	EVQ21405R	SW, MEMORY	
S811	EVQ21405R	SW, FIXED	
S812	EVQ21405R	SW, MANUAL 1	
S813	EVQ21405R	SW, MANUAL 2	
S814	EVQ21405R	SW, MANUAL 3	
S815	EVQ21405R	SW, SURROUND MODE	
S816	EVQ21405R	SW, DELAY TIME	
S817	EVQ21405R	SW, CENTER MODE	
S818	EVQ21405R	SW, TEST	
S819	EVQ21405R	SW, 3-STEREO	
S901	EVQ21405R	SW, PRESET 1	
S902	EVQ21405R	SW, PRESET 2	
S903	EVQ21405R	SW, PRESET 3	
S904	EVQ21405R	SW, PRESET 4	
S905	EVQ21405R	SW, PRESET 5	
S906	EVQ21405R	SW, PRESET 6	
S907	EVQ21405R	SW, PRESET 7	

Ref. No.	Part No.	Part Name & Description	Remarks
S908	EVQ21405R	SW, PRESET 8	
S909	EVQ21405R	SW, PRESET 9	
S910	EVQ21405R	SW, PRESET 0	
S911	EVQ21405R	SW, SURROUND	
S912	EVQ21405R	SW, CENTER (DOWN)	
S913	EVQ21405R	SW, CENTER (UP)	
S914	EVQ21405R	SW, REAR (DOWN)	
S915	EVQ21405R	SW, REAR (UP)	
S916	EVQ21405R	SW, PHONO	
S917	EVQ21405R	SW, TUNER	
S918	EVQ21405R	SW, TAPE MONITOR	
S919	EVQ21405R	SW, VDP	
S920	EVQ21405R	SW, VCR3	
S921	EVQ21405R	SW, VCR2	
S922	EVQ21405R	SW, VCR1	
S923	EVQ21405R	SW, CD	
S924	EVQ21405R	SW, DAT	
S925	EVQ21405R	SW, LOUDNESS	
S926	EVQ21405R	SW, TUNING MODE	
S927	EVQ21405R	SW, FM	
S928	EVQ21405R	SW, AM	
S929	EVQ21405R	SW, FM MODE	
S930	EVQ21405R	SW, M. SCAN	
S931	EVQ21405R	SW, MEMORY	
S932	EVQ21405R	SW, POWER ON/OFF	
		CONNECTOR (S)	
CN201	RJT057W007-1	CONNECTOR (7P)	
CN201	RJU057W007	SOCKET (7P)	
CN202	RJT057W007-1	CONNECTOR (7P)	
CN202	RJU057W007	SOCKET (7P)	
CN203	RJT057W007-1	CONNECTOR (7P)	
CN203	RJU057W007	SOCKET (7P)	
CN204	RJT057W007-1	CONNECTOR (7P)	
CN204	RJU057W007	SOCKET (7P)	
CN401	SJT3319	CONNECTOR (3P)	
CN402	SJT3511	CONNECTOR (5P)	
CN404	RJT005W010	CONNECTOR (10P)	
CN404A	RJU005W010	SOCKET (10P)	
CN405	RJT005W010	CONNECTOR (10P)	
CN405A	RJU005W010	SOCKET (10P)	
CN406	RJS1A1704	SOCKET (4P)	
CN501	RJT003K009M1	CONNECTOR (9P)	
CN501	RJU003K009M1	SOCKET (9P)	
CN502	RJT003K009M1	CONNECTOR (9P)	
CN502	RJU003K009M1	SOCKET (9P)	
CN503	RJS1A1703	SOCKET (3P)	
CN601	RJP1A3404	CONNECTOR (4P)	
CN602	RJP1A3303	CONNECTOR (3P)	
CN651	SJT3213	CONNECTOR (2P)	
CN702	RJS1A1703	SOCKET (3P)	

Ref. No.	Part No.	Part Name & Description	Remarks
CN901	RJT003K008M1	CONNECTOR (8P)	
CN901	RJU003K008M1	SOCKET (8P)	
CN902	RJT003K008M1	CONNECTOR (8P)	
CN902	RJU003K008M1	SOCKET (8P)	
CN903	RJT003K008M1	CONNECTOR (8P)	
CN903	RJU003K008M1	SOCKET (8P)	
CN904	RJT003K006M1	CONNECTOR (6P)	
CN904	RJU003K006M1	SOCKET (6P)	
CN905	RJT003K008M1	CONNECTOR (8P)	
CN905	RJU003K008M1	SOCKET (8P)	
CN906	RJT003K008M1	CONNECTOR (8P)	
CN906	RJU003K008M1	SOCKET (8P)	
CN907	RJT003K008M1	CONNECTOR (8P)	
CN907	RJU003K008M1	SOCKET (8P)	
CN908	SJS50681BB	SOCKET (6P)	
CN908	SJT30648BB1	CONNECTOR (6P)	
CN909	SJS50681BB	SOCKET (6P)	
CN909	SJT30648BB1	CONNECTOR (6P)	
CN910	SJS50681BB	SOCKET (6P)	
CN910	SJT30648BB1	CONNECTOR (6P)	
CN911	SJS50581BB	SOCKET (5P)	
CN911	SJT30549BB1	CONNECTOR (5P)	
CN912	SJS50681BB	SOCKET (6P)	
CN912	SJT30648BB1	CONNECTOR (6P)	
CN913	RJT057W004-1	CONNECTOR (4P)	
CN913	RJU057W004	SOCKET (4P)	
CN1003	RJS1A1705	SOCKET (5P)	
CN1201	RJP1A3303	CONNECTOR (3P)	
CN1301	RJS1A1705	SOCKET (5P)	
CN601A	RJP1A4010	CONNECTOR (10P)	
CN701A	RJS1A1703	SOCKET (3P)	
CN704A	RJS1A1704	SOCKET (4P)	
CN914A	SJS50482JQH	SOCKET (4P)	
CN1001A	RJS1A1705	SOCKET (5P)	
CN1002A	RJS1A1704	SOCKET (4P)	
CN3002A	RJS1A1705	SOCKET (5P)	
CN601B	RJP1A3606	CONNECTOR (6P)	
CN701B	RJS1A1703	SOCKET (3P)	
CN704B	RJS1A1704	SOCKET (4P)	
CN914B	SJT30445JQ	CONNECTOR (4P)	
CN1001B	RJS1A1704	SOCKET (4P)	
CN1002B	RJS1A1704	SOCKET (4P)	
CN3002B	RJS1A1705	SOCKET (5P)	
CN704C	RJS1A1704	SOCKET (4P)	
CN1002C	RJS1A1704	SOCKET (4P)	
		FUSE HOLDER (S)	
E701-706	RJR0011	FUSE HOLDER	
		RELAY (S)	

Ref. No.	Part No.	Part Name & Description	Remarks
RL601	SSY134	RELAY	
RL751	RSY0008-C	RELAY	⚠
RL1201	SSY134	RELAY	
		JACK (S)	
JK101	RJH4202	ANT. TERMINAL BOARD	
JK351	SJF3069-3N	JACK, VCR1/VDP/VIDEO OUT	
JK352	SJF3068-2N	JACK, VCR2	
JK353	SJF3063-1A	JACK, VIDEO IN/AUDIO IN	
JK371	SJS9418	JACK, S-VIDEO VCR1 OUT	
JK372	SJS9418	JACK, S-VIDEO VCR1 IN	
JK373	SJS9418	JACK, S-VIDEO VDP	
JK374	SJS9418	JACK, S-VIDEO OUT	
JK375	SJS9418-1	JACK, S-VIDEO IN	
JK401	SJF3069N	JACK, PHONO/REC OUT	
JK402	SJF3069N	JACK, CD/PLAYBACK	
JK403	SJF3069N	JACK, DAT	
JK404	SJF3069N	JACK, VCR1	
JK405	SJF3069N	JACK, VCR2	
JK406	SJF3068N	JACK, VDP	
JK407	SJF3069N	JACK, PRE. OUT/MAIN IN	
JK408	SJFD7	JACK, CENTER SPEAKER OUT	
JK409	RJJ33TR01	JACK, REMOTE CONTROL OUT	
JK601	RJJ63TA01	HEADPHONES JACK	
JK602	RJH4801	FRONT SPEAKER TERMINAL	
JK701	SJS305-1	CONNECTOR	
JK791, 792	SJS9233B	AC OUTLET	⚠
JK793	SJS9234B	AC INLET	⚠
JK1201	RJH4203	CENTER SPEAKER TERMINAL	
JK1301	RJR0054	REAR SPEAKER TERMINAL	

Notes : * Capacity valuse are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R101, 102	ERDS2TJ103	1/4W 10K
R104	ERDS2TJ102	1/4W 1K
R105	ERDS2TJ561	1/4W 560
R106	ERDS2TJ562	1/4W 5.6K
R107	ERDS2TJ103	1/4W 10K
R108	ERDS2TJ151	1/4W 150
R109-111	ERDS2TJ104	1/4W 100K
R199	ERDS1FVJ104T	1/2W 100K ⚠
R201	ERDS2TJ822	1/4W 8.2K
R202	ERDS2TJ824	1/4W 820K
R203	ERDS2TJ271	1/4W 270
R204	ERDS2TJ824	1/4W 820K
R205	ERDS2TJ391	1/4W 390
R206	ERDS2TJ561	1/4W 560
R207	ERDS2TJ822	1/4W 8.2K
R208	ERDS2TJ102	1/4W 1K
R209	ERDS2TJ471	1/4W 470
R210	ERDS2TJ332	1/4W 3.3K
R211	ERDS2TJ222	1/4W 2.2K
R212	ERDS2TJ153	1/4W 15K
R213	ERDS2TJ104	1/4W 100K
R214	ERDS2TJ824	1/4W 820K
R215	ERDS2TJ822	1/4W 8.2K
R216	ERDS2TJ563	1/4W 56K
R217	ERDS2TJ223	1/4W 22K
R218	ERDS2TJ563	1/4W 56K
R219	ERDS2TJ223	1/4W 22K
R220	ERDS2TJ103	1/4W 10K
R221	ERDS2TJ104	1/4W 100K
R222	ERDS2TJ473	1/4W 47K
R223	ERDS2TJ154	1/4W 150K
R224	ERDS2TJ223	1/4W 22K
R226	ERDS2TJ103	1/4W 10K
R228	ERDS2TJ123	1/4W 12K
R229	ERDS2TJ102	1/4W 1K
R230	ERDS2TJ104	1/4W 100K
R231	ERDS2TJ471	1/4W 470
R232	ERDS2TJ122	1/4W 1.2K
R233	ERDS2TJ684	1/4W 680K
R234	ERDS2TJ103	1/4W 10K
R235	ERDS2TJ471	1/4W 470
R237	ERDS2TJ221	1/4W 220
R247	ERDS2TJ103	1/4W 10K
R301	ERDS2TJ393	1/4W 39K
R302	ERDS2TJ151	1/4W 150
R303, 304	ERDS2TJ223	1/4W 22K

Ref. No.	Part No.	Values & Remarks
R305, 306	ERDS2TJ272T	1/4W 2.7K
R307, 308	ERDS2TJ104	1/4W 100K
R309	ERDS2TJ394	1/4W 390K
R311	ERDS2TJ102	1/4W 1K
R312	ERDS2TJ153	1/4W 15K
R313, 314	ERDS2TJ473	1/4W 47K
R315, 316	ERDS2TJ103	1/4W 10K
R317	ERDS2TJ473	1/4W 47K
R351-354	ERDS2EJ820	1/4W 82
R355	ERDS2TJ101	1/4W 100
R356	ERDS2EJ820	1/4W 82
R357	ERDS2TJ101	1/4W 100
R358	ERDS2EJ820	1/4W 82
R359	ERDS2TJ101	1/4W 100
R365	ERDS2EJ820	1/4W 82
R366	ERDS2TJ221	1/4W 220
R367	ERDS2TJ102	1/4W 1K
R368	ERDS2TJ103	1/4W 10K
R369	ERDS2TJ473	1/4W 47K
R371-378	ERDS2EJ820	1/4W 82
R379-382	ERDS2TJ101	1/4W 100
R393, 394	ERDS2EJ820	1/4W 82
R401, 402	ERDS2TJ332	1/4W 3.3K
R403, 404	ERDS2TJ822	1/4W 8.2K
R405-408	ERDS2TJ470	1/4W 47
R409	ERDS2TJ103	1/4W 10K
R411-416	ERDS2TJ102	1/4W 1K
R417, 418	ERDS2TJ332	1/4W 3.3K
R419-426	ERDS2TJ102	1/4W 1K
R427, 428	ERDS2TJ332	1/4W 3.3K
R429-431	ERDS2TJ103	1/4W 10K
R433-436	ERDS2TJ822	1/4W 8.2K
R451, 452	ERDS2TJ821	1/4W 820
R453, 454	ERDS2TJ224T	1/4W 220K
R455, 456	ERDS2TJ563	1/4W 56K
R457, 458	ERDS2TJ271	1/4W 270
R459, 460	ERDS2TJ680T	1/4W 68
R461, 462	ERDS2TJ184T	1/4W 180K
R463, 464	ERDS2TJ123	1/4W 12K
R465, 466	ERDS2TJ563	1/4W 56K
R467, 468	ERDS2TJ102	1/4W 1K
R501, 502	ERDS2TJ222	1/4W 2.2K
R503, 504	ERDS2TJ102	1/4W 1K
R505, 506	ERDS2TJ473	1/4W 47K
R507, 508	ERDS2TJ104	1/4W 100K
R509-512	ERDS2TJ103	1/4W 10K
R513	ERDS2TJ153	1/4W 15K
R514	ERDS2TJ394	1/4W 390K
R515, 516	ERDS2TJ104	1/4W 100K

Ref. No.	Part No.	Values & Remarks
R517, 518	ERDS2TJ563	1/4W 56K
R519, 520	ERDS2TJ392T	1/4W 3.9K
R521, 522	ERDS2TJ393	1/4W 39K
R523, 524	ERDS2TJ222	1/4W 2.2K
R525, 526	ERDS2TJ221	1/4W 220
R527-530	ERDS2TJ102	1/4W 1K
R531	ERDS2TJ394	1/4W 390K
R532	ERDS2TJ103	1/4W 10K
R533	ERDS2TJ104	1/4W 100K
R534	ERDS2TJ103	1/4W 10K
R535	ERDS2TJ104	1/4W 100K
R536	ERDS2TJ102	1/4W 1K
R537	ERDS2TJ104	1/4W 100K
R538	ERDS2TJ684	1/4W 680K
R539	ERDS2TJ153T	1/4W 15K
R540	ERDS2TJ223T	1/4W 22K
R541	ERDS2TJ183T	1/4W 18K
R542	ERDS2TJ222	1/4W 2.2K
R543	ERDS2TJ824	1/4W 820K
R544	ERDS2TJ272T	1/4W 2.7K
R545	ERDS2TJ104	1/4W 100K
R546	ERDS2TJ103	1/4W 10K
R547, 548	ERDS2TJ104	1/4W 100K
R549	ERDS2TJ102	1/4W 1K
R550	ERDS2TJ103	1/4W 10K
R551	ERDS2TJ104	1/4W 100K
R552	ERDS2TJ392T	1/4W 3.9K
R553	ERDS2TJ103	1/4W 10K
R554	ERDS2TJ223	1/4W 22K
R555	ERDS2TJ472	1/4W 4.7K
R557	ERDS2TJ333	1/4W 33K
R558	ERDS2TJ223	1/4W 22K
R601, 602	ERDS2TJ224T	1/4W 220K
R603, 604	ERDS2TJ102	1/4W 1K
R605, 606	ERDS2TJ563	1/4W 56K
R607-610	ERDS2TJ562	1/4W 5.6K
R611, 612	ERDS2TJ563	1/4W 56K
R613, 614	ERDS2TJ182	1/4W 1.8K
R615, 616	ERDS2TJ222	1/4W 2.2K
R617, 618	ERDS2TJ470	1/4W 47
R619, 620	ERDS1FVJ100T	1/2W 10 ⚠
R621	ERDS2TJ102	1/4W 1K
R622	ERDS2TJ101	1/4W 100
R623	ERDS2TJ223	1/4W 22K
R624	ERDS2TJ684	1/4W 680K ⚠
R625	ERDS2TJ154	1/4W 150K
R626	ERDS2TJ473	1/4W 47K ⚠
R627	ERDS2TJ684	1/4W 680K
R629	ERD25FJ470	1/4W 47 ⚠

Ref. No.	Part No.	Values & Remarks
R630	ERDS1FVJ471T	1/2W 470 ⚠
R631	ERDS1FVJ561T	1/2W 560 ⚠
R632	ERDS2TJ101	1/4W 100
R633, 634	ERG2ANJP331S	2W 330
R635	ERDS2TJ103	1/4W 10K
R637	ERDS2TJ103	1/4W 10K
R638	ERDS2TJ102	1/4W 1K
R651-654	ERDS2TJ223	1/4W 22K
R656	ERDS2TJ392T	1/4W 3.9K
R657	ERDS2TJ104	1/4W 100K
R658, 659	ERDS2TJ103	1/4W 10K
R660	ERDS2TJ223	1/4W 22K
R661-663	ERDS1FVJ220T	1/2W 22 ⚠
R664	ERDS2TJ223	1/4W 22K
R701, 702	ERDS1FVJ2R7T	1/2W 2.7 ⚠
R703	ERDS1FVJ4R7T	1/2W 4.7 ⚠
R704, 705	ERDS1FVJ2R7T	1/2W 2.7 ⚠
R706	ERDS2TJ122	1/4W 1.2K ⚠
R707	ERDS2TJ122T	1/4W 1.2K
R708	ERDS2TJ272T	1/4W 2.7K ⚠
R709-712	ERDS2TJ1R2	1/4W 1.2 ⚠
R713	ERDS2TJ272T	1/4W 2.7K
R714	ERDS2TJ222	1/4W 2.2K
R715	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R716	ERDS2TJ182	1/4W 1.8K
R717	ERDS2TJ472T	1/4W 4.7K ⚠
R718	ERD25FJ470	1/4W 47 ⚠
R719	ERDS2TJ102	1/4W 1K
R720	ERD25FVJ150T	1/4W 15 ⚠
R721, 722	ERDS2TJ2R2T	1/4W 2.2 ⚠
R723	ERDS1FVJ1R0T	1/2W 1.0 ⚠
R724	ERDS2TJ1R8T	1/4W 1.8 ⚠
R751	ERC12ZGK335	1/2W 3.3M ⚠
R753	ERDS2TJ102	1/4W 1K
R754, 755	ERDS2TJ472	1/4W 4.7K
R801	ERDS2TJ681	1/4W 680
R802	ERDS2TJ222	1/4W 2.2K
R803	ERDS2TJ105T	1/4W 1M
R804	ERDS2TJ104	1/4W 100K
R805	ERDS2TJ223	1/4W 22K
R806	ERDS2TJ102	1/4W 1K
R807	ERDS2TJ822	1/4W 8.2K
R809-812	ERDS2TJ102	1/4W 1K
R813, 814	ERDS2TJ122	1/4W 1.2K
R815, 816	ERDS2TJ152	1/4W 1.5K
R817, 818	ERDS2TJ182	1/4W 1.8K
R819	ERDS2TJ222	1/4W 2.2K
R820, 821	ERDS2TJ332	1/4W 3.3K
R822, 823	ERDS2TJ472	1/4W 4.7K
R824, 825	ERDS2TJ682T	1/4W 6.8K
R826	ERDS2TJ123	1/4W 12K
R827	ERDS2TJ103	1/4W 10K

Ref. No.	Part No.	Values & Remarks
R828, 829	ERDS1FVJ331T	1/2W 330 ⚠
R830	ERDS2TJ104	1/4W 100K
R831	ERDS2TJ152	1/4W 1.5K
R832	ERDS2TJ332	1/4W 3.3K
R833	ERDS2TJ222	1/4W 2.2K
R834	ERDS2TJ103	1/4W 10K
R835, 836	ERDS2TJ824	1/4W 820K
R838	ERDS2TJ823T	1/4W 82K
R839, 840	ERDS2TJ153	1/4W 15K
R841, 842	ERDS2TJ222	1/4W 2.2K
R843	ERDS2TJ471	1/4W 470
R844	ERDS2TJ563	1/4W 56K
R845-849	ERDS2TJ473	1/4W 47K
R851	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R853	ERDS2TJ473	1/4W 47K
R861, 862	ERDS2TJ474	1/4W 470K
R863	ERDS2TJ103	1/4W 10K
R891	ERDS2TJ102	1/4W 1K
R901	ERDS2TJ102	1/4W 1K
R902	ERDS2TJ681	1/4W 680
R903, 904	ERDS2TJ103	1/4W 10K
R905, 906	ERDS2TJ102	1/4W 1K
R907, 908	ERDS2TJ182	1/4W 1.8K
R909, 910	ERDS2TJ222	1/4W 2.2K
R911, 912	ERDS2TJ392T	1/4W 3.9K
R913, 914	ERDS2TJ562	1/4W 5.6K
R915, 916	ERDS2TJ123	1/4W 12K
R917, 918	ERDS2TJ273	1/4W 27K
R919	ERDS2TJ224T	1/4W 220K
R920	ERDS2TJ222	1/4W 2.2K
R921	ERDS2TJ103	1/4W 10K
R922, 923	ERDS2TJ472	1/4W 4.7K
R925, 926	ERDS2TJ102	1/4W 1K
R927	ERDS2TJ331	1/4W 330
R928, 929	ERDS2TJ103	1/4W 10K
R930, 931	ERD25FJ101	1/4W 100 ⚠
R932	ERDS2TJ103	1/4W 10K
R971-973	ERDS2TJ221	1/4W 220
R1001	ERDS2TJ103	1/4W 10K
R1002, 1003	ERDS2TJ105T	1/4W 1M
R1004	ERDS2TJ103	1/4W 10K
R1005	ERDS2TJ105T	1/4W 1M
R1006	ERDS2TJ103	1/4W 10K
R1007, 1008	ERDS2TJ104	1/4W 100K
R1009, 1010	ERDS2TJ332	1/4W 3.3K
R1011, 1012	ERDS2TJ101	1/4W 100
R1013	ERDS2TJ821	1/4W 820
R1014-1016	ERDS2TJ103	1/4W 10K
R1017, 1018	ERDS2TJ182	1/4W 1.8K
R1021-1025	ERDS2TJ103	1/4W 10K
R1026	ERDS2TJ105T	1/4W 1M
R1027	ERDS2TJ472	1/4W 4.7K

Ref. No.	Part No.	Values & Remarks
R1028-1030	ERDS2TJ103	1/4W 10K
R1031	ERDS2TJ105T	1/4W 1M
R1033	ERDS2TJ105T	1/4W 1M
R1035-1038	ERDS2TJ822	1/4W 8.2K
R1039, 1040	ERDS2TJ333	1/4W 33K
R1041, 1042	ERDS2TJ105T	1/4W 1M
R1044	ERDS2TJ103	1/4W 10K
R1046	ERDS2TJ822	1/4W 8.2K
R1048	ERDS2TJ822	1/4W 8.2K
R1050	ERDS2TJ105T	1/4W 1M
R1052	ERDS2TJ333	1/4W 33K
R1053	ERDS2TJ224T	1/4W 220K
R1054	ERDS2TJ222	1/4W 2.2K
R1057, 1058	ERDS2TJ103	1/4W 10K
R1061-1072	ERDS2TJ822	1/4W 8.2K
R1077, 1078	ERDS2TJ101	1/4W 100
R1081, 1082	ERDS2TJ103	1/4W 10K
R1083, 1084	ERDS2TJ472	1/4W 4.7K
R1085-1088	ERDS2TJ103	1/4W 10K
R1089, 1090	ERDS2TJ105T	1/4W 1M
R1103, 1104	ERDS2TJ333	1/4W 33K
R1105, 1106	ERDS2TJ682T	1/4W 6.8K
R1107-1112	ERDS2TJ474	1/4W 470K
R1113-1115	ERDS2TJ332	1/4W 3.3K
R1116	ERDS2TJ563	1/4W 56K
R1153-1158	ERDS2TJ473	1/4W 47K
R1161	ERDS2TJ394	1/4W 390K
R1162	ERDS2TJ152	1/4W 1.5K
R1163-1166	ERDS2TJ224T	1/4W 220K
R1171, 1172	ERDS2TJ103	1/4W 10K
R1201	ERDS2TJ222	1/4W 2.2K
R1202	ERDS2TJ104	1/4W 100K
R1203	ERDS2TJ394	1/4W 390K
R1204	ERDS2TJ102	1/4W 1K
R1205	ERDS2TJ104	1/4W 100K
R1206	ERDS2TJ103	1/4W 10K
R1207	ERDS2TJ563	1/4W 56K
R1208	ERDS2TJ103	1/4W 10K
R1209	ERDS2TJ391T	1/4W 390
R1210	ERDS2TJ101	1/4W 100
R1211, 1212	ERDS2TJ563	1/4W 56K
R1213	ERDS2TJ470	1/4W 47
R1214	ERDS1FVJ100T	1/2W 10 ⚠
R1215	ERDS2TJ473	1/4W 47K ⚠
R1216	ERDS2TJ684	1/4W 680K
R1217	ERD25FJ470	1/4W 47 ⚠
R1219	ERDS2TJ223	1/4W 22K
R1220, 1221	ERDS2TJ101	1/4W 100
R1222	ERDS2TJ102	1/4W 1K
R1223	ERDS1FVJ471T	1/2W 470 ⚠
R1224	ERDS1FVJ561T	1/2W 560 ⚠
R1225	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks
R1301	ERDS2TJ222	1/4W 2.2K
R1302	ERDS2TJ104	1/4W 100K
R1305	ERDS2TJ102	1/4W 1K
R1307, 1308	ERDS2TJ222	1/4W 2.2K
R1309, 1310	ERDS2TJ563	1/4W 56K
R1311, 1312	ERDS2TJ332T	1/4W 3.3K
R1313, 1314	ERDS2TJ563	1/4W 56K
R1315, 1316	ERDS1FVJ4R7T	1/2W 4.7 ⚠
R1317, 1318	ERDS2TJ100	1/4W 10
R1319	ERD25FJ470	1/4W 47 ⚠
R1320	ERDS2TJ684	1/4W 680K
R1321	ERD25FJ470	1/4W 47 ⚠
R1322	ERDS2TJ102T	1/4W 1K
R1323	ERDS2TJ682T	1/4W 6.8K
R2001	ERDS2TJ473	1/4W 47K
R2005-2008	ERDS2TJ104	1/4W 100K
R2009, 2010	ERDS2TJ473	1/4W 47K
R2011, 2012	ERDS2TJ104	1/4W 100K
R2015-2022	ERDS2TJ333	1/4W 33K
R2023, 2024	ERDS2TJ473	1/4W 47K
R2025-2028	ERDS2TJ103	1/4W 10K
R2029, 2030	ERDS2TJ823T	1/4W 82K
R2031-2034	ERDS2TJ473	1/4W 47K
R2037-2040	ERDS2TJ155	1/4W 1.5M
R2041, 2042	ERDS2TJ823T	1/4W 82K
R2043, 2044	ERDS2TJ471	1/4W 470
R2045-2052	ERDS2TJ102	1/4W 1K
R3001	ERDS2TJ101	1/4W 100
R3002	ERDS2TJ822	1/4W 8.2K
R3003	ERDS2TJ101	1/4W 100
R3004	ERDS2TJ151	1/4W 150
R3005	ERDS2TJ102	1/4W 1K
R3006	ERDS2TJ824	1/4W 820K
R3007	ERDS2TJ105T	1/4W 1M
R3008	ERDS2TJ223	1/4W 22K
R3009	ERDS2TJ473	1/4W 47K
R3010	ERDS2TJ223	1/4W 22K
R3011	ERDS2TJ105T	1/4W 1M
R3012	ERDS2TJ223	1/4W 22K
R3013	ERDS2TJ473	1/4W 47K
R3014	ERDS2TJ223	1/4W 22K
R3015	ERDS2TJ105T	1/4W 1M
R3016	ERDS2TJ223	1/4W 22K
R3017	ERDS2TJ473	1/4W 47K
R3018	ERDS2TJ223	1/4W 22K
R3019	ERDS2TJ471	1/4W 470
R3020	ERDS2TJ221	1/4W 220
R3021	ERDS2TJ471	1/4W 470
R3022	ERDS2TJ561	1/4W 560
R3023, 3024	ERDS2TJ104	1/4W 100K
R3025	ERDS2TJ472	1/4W 4.7K
R3026-3028	ERDS2TJ103	1/4W 10K
R3029	ERDS2TJ472	1/4W 4.7K
R3034	ERDS2TJ154	1/4W 150K
R3036, 3037	ERDS2TJ223	1/4W 22K
R3038	ERDS2TJ103	1/4W 10K
R3039	ERDS2TJ224T	1/4W 220K
R3040-3042	ERDS2TJ221	1/4W 220
R3043	ERDS2TJ104T	1/4W 100K
R3045	ERDS2TJ221	1/4W 220
R3046	ERDS2TJ333	1/4W 33K
R3047	ERDS2TJ563	1/4W 56K
R3048	ERDS2TJ102	1/4W 1K
R3049	ERDS2TJ154	1/4W 150K
R3050, 3051	ERDS2TJ222	1/4W 2.2K
R3052	ERDS2TJ333	1/4W 33K
R3053	ERDS2TJ154	1/4W 150K
R3054, 3055	ERDS2TJ103	1/4W 10K
R3057	ERDS2TJ223	1/4W 22K
R3058-3061	ERDS1FVJ181T	1/2W 180 ⚠
R3062	ERDS2TJ472	1/4W 4.7K
R3064	ERDS2TJ102	1/4W 1K
R3067	ERDS2TJ105T	1/4W 1M
R3068	ERDS2TJ224T	1/4W 220K
R3069	ERDS2TJ221	1/4W 220
R3071-3073	ERDS2TJ221	1/4W 220
R3075	ERDS2TJ102	1/4W 1K
R3076-3078	ERDS2TJ103	1/4W 10K
R3103-3106	ERDS2TJ153	1/4W 15K
R3107-3110	ERDS2TJ273	1/4W 27K
R3111-3114	ERDS2TJ473	1/4W 47K
R3115, 3116	ERDS2TJ102	1/4W 1K
R3117, 3118	ERDS2TJ391	1/4W 390
R3119, 3120	ERDS2TJ104	1/4W 100K
R3121, 3122	ERDS2TJ103	1/4W 10K
R3123, 3124	ERDS2TJ123	1/4W 12K
R3125, 3126	ERDS2TJ562	1/4W 5.6K
R3127, 3128	ERDS2TJ561	1/4W 560
R3129, 3130	ERDS2TJ332	1/4W 3.3K
R3131, 3132	ERDS2TJ822	1/4W 8.2K
R3133, 3134	ERDS2TJ153	1/4W 15K
R3135, 3136	ERDS2TJ102	1/4W 1K
R3137, 3138	ERDS2TJ152	1/4W 1.5K
		CAPACITORS
C101, 102	ECBT1H150JC5	50V 15P
C103	ECBT1H102KB5	50V 1000P
C105	ECEA0JU221	6.3V 220U
C106	ECKR1H103ZF5	50V 0.01U
C107	ECKT1H223ZF	50V 0.022U
C108	ECEA1HK4R7	50V 4.7U
C109	ECEA1CU330	16V 33U
C110, 111	ECBT1H102KB5	50V 1000P
C201, 202	ECKR1H103ZF5	50V 0.01U
C204	ECBT1H470J5	50V 47P
C205	ECKT1H223ZF	50V 0.022U
C206	ECBT1H150JC5	50V 15P
C207	ECBT1C103MS5	16V 0.01U
C208	ECEA0JU101B	6.3V 100U
C209	ECEA1HK100	50V 10U
C210-212	ECKT1H223ZF	50V 0.022U
C213	ECBT1H101KB5	50V 100P
C214	ECEA1CK100B	16V 10U
C215	ECKR1H103ZF5	50V 0.01U
C216	ECEA1CK100B	16V 10U
C217	ECEA1HK2R2B	50V 2.2U
C220	ECEA1CK100B	16V 10U
C221	ECFR1E183KR	25V 0.018U
C222	ECQM1H473JZ	50V 0.047U
C225	ECBT1H180JC5	50V 18P
C226	ECKR1H103ZF5	50V 0.01U
C227	ECEA1CK100B	16V 10U
C228	ECBT1H100JC5	50V 10P
C301	ECEA1CU101	16V 100U
C302	ECEA1HKR47	50V 0.47U
C303	ECEA1HK010B	50V 1U
C304-306	ECEA1HK3R3	50V 3.3U
C307, 308	ECFR1E273KR	25V 0.027U
C309	ECKT1H223ZF	50V 0.022U
C310	ECFR1E473KR	25V 0.047U
C311	ECQP1471JZ	50V 470P
C312	ECEA1VK4R7	35V 4.7U
C313, 314	ECBT1H181KB5	50V 180P
C351-353	ECEA1HK2R2B	50V 2.2U
C354-356	ECEA0JU471	6.3V 470U
C359	ECEA0JK470	6.3V 47U
C360	ECBT1E103ZF	25V 0.01U
C365	ECEA1HK2R2B	50V 2.2U
C366-368	ECEA1CK100B	16V 10U
C370	ECEA0JU221	6.3V 220U
C371-374	ECEA1HK2R2B	50V 2.2U
C375-378	ECEA0JU471	6.3V 470U
C381, 382	ECBT1E103ZF	25V 0.01U
C383, 384	ECEA0JK470	6.3V 47U
C393	ECEA0JU101B	6.3V 100U
C395, 396	ECEA1HK2R2B	50V 2.2U
C397, 398	ECEA1CK100B	16V 10U
C401, 402	ECBT1E103ZF	25V 0.01U
C403, 404	ECKR1H103ZF5	50V 0.01U
C405, 406	ECBT1H101KB5	50V 100P
C407	ECA0JAP101B	6.3V 100U
C408, 409	ECKR1H103ZF5	50V 0.01U
C410, 411	ECA1EAP330B	25V 33U
C451, 452	ECA1HAP3R3B	50V 3.3U
C453, 454	ECBT1H101KB5	50V 100P

Ref. No.	Part No.	Values & Remarks
C455, 456	ECBT1H102KB5	50V 1000P
C457, 458	ECFR1E223KR	25V 0.022U
C459, 460	ECFR1E682KR	25V 6800P
C461, 462	ECA1HAP3R3B	50V 3.3U
C463, 464	ECA1EAP330B	25V 33U
C501, 502	ECQM1H333JZ	50V 0.033U
C503, 504	ECBT1H101KB5	50V 100P
C505, 506	ECA1CAP470B	16V 47U
C507-510	ECBT1E103ZF	25V 0.01U
C513, 514	ECBT1H150J5	50V 15P
C515, 516	ECBT1H101KB5	50V 100P
C517, 518	ECBT1H330J5	50V 33P
C519, 520	ECA1HAP3R3B	50V 3.3U
C521	ECKR1H103ZF5	50V 0.01U
C522	ECFR1E104KR	25V 0.1U
C523	ECBT1H330J5	50V 33P
C524	ECA1HAP010B	50V 1U
C525	ECA1HAP2R2B	50V 2.2U
C526, 527	ECBT1E103ZF	25V 0.01U
C528	ECA1HAP3R3B	50V 3.3U
C529	ECA1HAP100B	50V 10U
C530, 531	ECBT1E103ZF	25V 0.01U
C532	ECA1HAP3R3B	50V 3.3U
C533	ECBT1H330J5	50V 33P
C601, 602	ECA1HAP3R3B	50V 3.3U
C603, 604	ECQP1271JZ	50V 270P
C605, 606	ECBT1H221KB5	50V 220P
C607, 608	ECA1VAP220B	35V 22U
C609, 610	ECCR1H100K5	50V 10P
C611, 612	ECQB1H223JZ3	50V 0.022U
C613	ECA2AAP100B	100V 10U
C615	ECA1VAP470B	35V 47U
C616	ECEA2AN2R2SB	100V 2.2U ⚠
C617, 618	ECQB1H681KF3	50V 680P
C619, 620	ECA2AAP221E	100V 220U ⚠
C651	ECA1HAP2R2B	50V 2.2U
C703, 704	ECA45AP472E	45V 4700U ⚠
C705, 706	ECETS56V472U	56V 4700U ⚠
C707	ECKR2H103ZU	500V 0.01U
C708	ECKR2H103ZU	500V 0.01U ⚠
C709	ECKR2H103ZU	500V 0.01U ⚠
C710	ECA1VM101B	35V 100U
C711, 712	ECA1CAP101B	16V 100U
C713	ECA1VAP470B	35V 47U
C714	ECKR1H103ZF5	50V 0.01U ⚠
C715	ECKR1H103ZF5	50V 0.01U
C716	ECKR1H103ZF5	50V 0.01U ⚠
C717	ECKR1H103ZF5	50V 0.01U
C718	ECA1CAP101B	16V 100U
C719	ECA1HAP3R3B	50V 3.3U
C720	ECEA1EU100B	25V 10U
C721, 722	ECKR2H103ZU	500V 0.01U ⚠

Ref. No.	Part No.	Values & Remarks
C751	ECKR1H103ZF5	50V 0.01U
C752	ECA1CM102B	16V 1000U
C754	ECA1HAP100B	50V 10U
C755	ECA0JAP101B	6.3V 100U
C756	ECBT1E103ZF	25V 0.01U
C757-759	ECKT1H223ZF	50V 0.022U
C791	ECKWNS103ZV	500V 0.01U ⚠
C801	ECEA0JU102	6.3V 1000U
C802	ECBT1E103ZF	25V 0.01U
C803, 804	ECEA0JU102	6.3V 1000U
C805	ECEA0JU471	6.3V 470U
C806	ECBT1E103ZF	25V 0.01U
C807, 808	ECEA1HKR47	50V 0.47U
C809	ECEA1CK100B	16V 10U
C810-814	ECBT1E103ZF	25V 0.01U
C815	ECEA1CK470	16V 47U
C816	ECEA1CK100B	16V 10U
C817, 818	ECBT1H102KB5	50V 1000P
C819	ECQP1102JZ3	11V 1000P
C820	ECEA1CK470	16V 47U
C821, 822	ECEA1HK3R3	50V 3.3U
C823	ECEA1CK100B	16V 10U
C851, 852	ECA0JAP101B	6.3V 100U
C853, 854	ECFR1E104KR	25V 0.1U
C891	ECFR1E392KR	25V 3900P
C901	ECEA0JU102	6.3V 1000U
C902	ECBT1E103ZF	25V 0.01U
C904, 905	ECEA0JU102	6.3V 1000U
C906	ECBT1E103ZF	25V 0.01U
C908	ECBT1H331KB5	50V 330P
C909, 910	ECBT1H101KB5	50V 100P
C911, 912	ECEA2AU100	100V 10U
C913	ECEA1HK100	50V 10U
C914	ECEA1VK100B	35V 10U
C916	ECEA1HK010B	50V 1U
C971	ECBT1E103ZF	25V 0.01U
C1001	ECBT1E103ZF	25V 0.01U
C1002	ECBT1H330J5	50V 33P
C1003	ECBT1E223ZF	25V 0.022U
C1004	ECEA0JU101B	6.3V 100U
C1005	ECBT1E103ZF	25V 0.01U
C1006	ECEA1EK4R7	25V 4.7U
C1007	ECBT1E223ZF	25V 0.022U
C1008, 1009	ECEA1CK100B	16V 10U
C1010, 1011	ECQP1332JZ3	13V 3300P
C1012	ECEA0JU221B	6.3V 220U
C1013	ECBT1E103ZF	25V 0.01U
C1014	ECBT1E223ZF	25V 0.022U
C1015	ECEA0JK470	6.3V 47U
C1017	ECBT1E223ZF	25V 0.022U
C1019, 1020	ECBT1H271KB5	50V 270P
C1021	ECBT1H101KB5	50V 100P

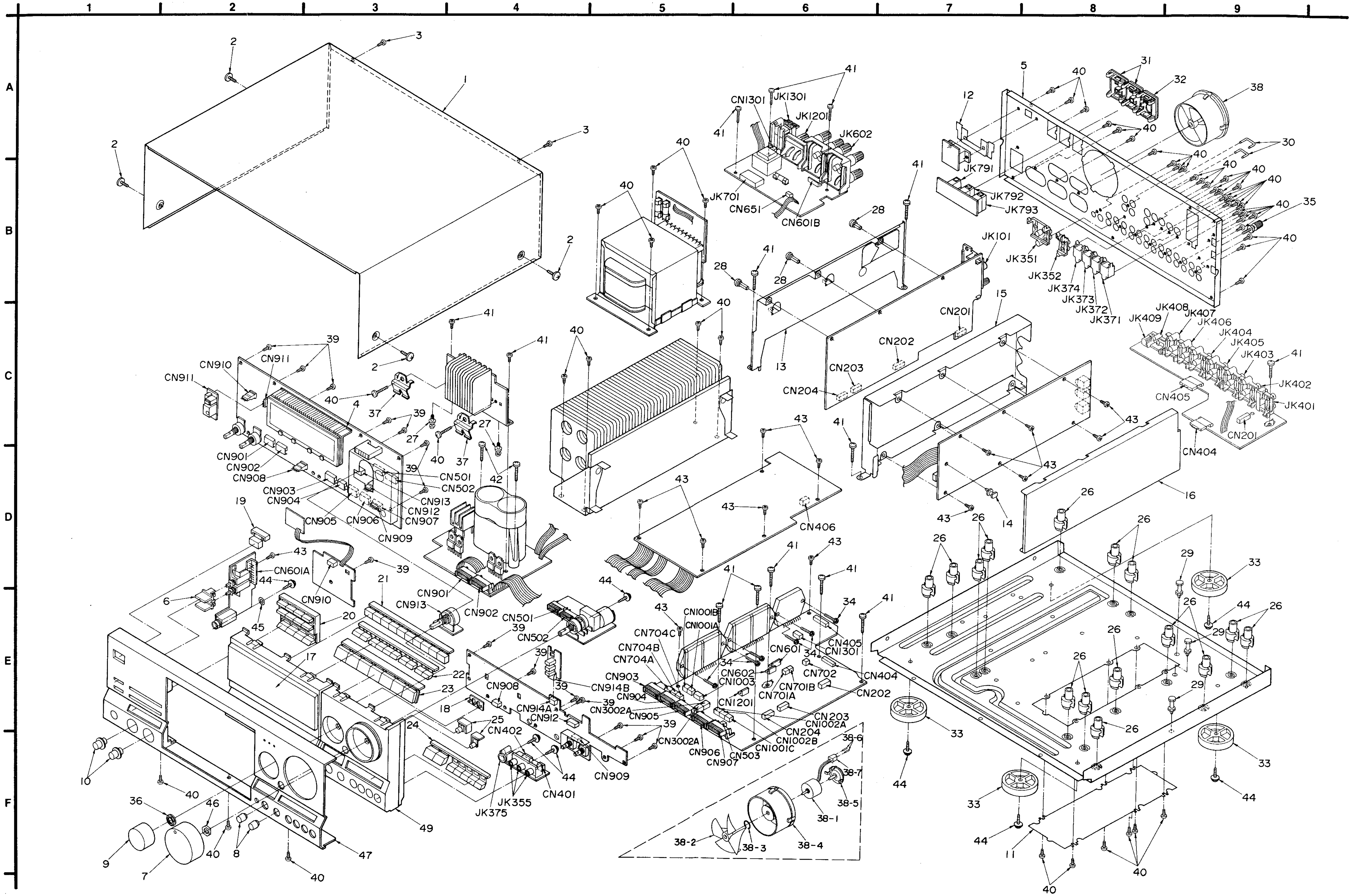
Ref. No.	Part No.	Values & Remarks
C1022	ECBT1H680J5	50V 68P
C1023	ECQV1H154JZ3	50V 0.15U
C1024-1026	ECEA1CK100B	16V 10U
C1027	ECBT1E103ZF	25V 0.01U
C1028	ECEA0JU471B	6.3V 470U
C1031, 1032	ECBT1H330J5	50V 33P
C1033, 1034	ECFR1E272KR	25V 2700P
C1035, 1036	ECBT1H391KB5	50V 390P
C1037, 1038	ECQP1682JZ3	16V 6800P
C1039, 1040	ECEA1CK100B	16V 10U
C1042	ECBT1H330J5	50V 33P
C1044	ECBT1H391KB5	50V 390P
C1045	ECFR1E272KR	25V 2700P
C1046	ECQP1682JZ3	16V 6800P
C1048	ECEA1HK010B	50V 1U
C1051, 1052	ECBT1E103ZF	25V 0.01U
C1055, 1056	ECEA1HK010B	50V 1U
C1057, 1058	ECBT1H391KB5	50V 390P
C1059, 1060	ECQP1682JZ3	16V 6800P
C1061, 1062	ECFR1E272KR	25V 2700P
C1063, 1064	ECQP1682JZ3	16V 6800P
C1065, 1066	ECBT1H391KB5	50V 390P
C1067, 1068	ECFR1E272KR	25V 2700P
C1069, 1070	ECEA1CK100B	16V 10U
C1075, 1076	ECBT1H101KB5	50V 100P
C1077, 1078	ECEA1CK100B	16V 10U
C1079, 1080	ECEA1EK4R7	25V 4.7U
C1081, 1082	ECBT1H680J5	50V 68P
C1085, 1086	ECBT1E103ZF	25V 0.01U
C1103-1110	ECEA1HK3R3	50V 3.3U
C1111, 1112	ECEA1CU470	16V 47U
C1113, 1114	ECBT1E103ZF	25V 0.01U
C1115-1117	ECBT1H181KB5	50V 180P
C1153-1158	ECEA1HK3R3	50V 3.3U
C1161, 1162	ECEA1CK100B	16V 10U
C1164	ECEA1EK4R7	25V 4.7U
C1201	ECA1HAP3R3B	50V 3.3U
C1202	ECKR1H103ZF5	50V 0.01U
C1203	ECBT1H271KB5	50V 270P
C1204	ECA1VAP470B	35V 47U
C1205	ECA1HAP330B	50V 33U
C1207	ECBT1H221KB5	50V 220P
C1209	ECCR1H100K5	50V 10P
C1211	ECQB1H223JZ3	50V 0.022U
C1212	ECEA2AN2R2SB	100V 2.2U
C1213	ECA2AAP100B	100V 10U
C1301, 1302	ECA1HAP3R3B	50V 3.3U
C1303, 1304	ECBA1H681KB5	50V 680P
C1305, 1306	ECA1VAP220B	35V 22U
C1307, 1308	ECBT1H102KB5	50V 1000P
C1309, 1310	ECCR1H100K5	50V 10P
C1311, 1312	ECQB1H223JZ3	50V 0.022U

Ref. No.	Part No.	Values & Remarks
C1313	ECA2AAP100B	100V 10U
C1314	ECA1CAP101B	16V 100U
C1315	ECEA1HK010B	50V 1U
C2001, 2002	ECEA1VK4R7	35V 4.7U
C2005-2008	ECEA1CK100B	16V 10U
C2009, 2010	ECQV1H393JZ3	50V 0.039U
C2011, 2012	ECQV1H473JZ3	50V 0.047U
C2013-2016	ECQB1H103JZ	50V 0.01U
C2017-2020	ECQP1222JZ	12V 2200P
C2021-2024	ECQP1102JZ3	11V 1000P
C2025, 2026	ECEA0JU101B	6.3V 100U
C2027	ECBT1E103ZF	25V 0.01U
C2028	ECEA0JU101B	6.3V 100U
C2029	ECKR1H103ZF5	50V 0.01U
C2030	ECBT1E103ZF	25V 0.01U
C2035-2040	ECEA1VK3R3	35V 3.3U
C2041-2046	ECEA1EK4R7	25V 4.7U
C2047, 2048	ECEA1HK010B	50V 1U
C2049, 2050	ECBT1H100JC5	50V 10P
C2051, 2052	ECBT1E103ZF	25V 0.01U
C2053-2056	ECEA1HK2R2B	50V 2.2U
C2057-2060	ECEA1CK100B	16V 10U
C2061, 2062	ECBT1H100JC5	50V 10P
C2063-2066	ECEA1CK100B	16V 10U
C2067, 2068	ECBT1E103ZF	25V 0.01U
C2069	ECEA1CU470	16V 47U
C2071, 2072	ECBT1H121KB5	50V 120P
C2073-2076	ECBT1H101KB5	50V 100P
C3001	ECEA0JK101	6.3V 100U
C3002	ECBT1E103ZF	25V 0.01U
C3004, 3005	ECBT1H4R7KC5	50V 4.7P
C3006	ECBT1E103ZF	25V 0.01U
C3007	ECEA0JK101	6.3V 100U
C3008	ECBT1H103KB5	50V 0.01U
C3009	ECBT1E103ZF	25V 0.01U
C3010	ECBT1H680J5	50V 68P
C3011	ECBT1H220JC5	50V 22P
C3012	ECBT1E103ZF	25V 0.01U
C3013	ECBT1H820JB5	50V 82P
C3014	ECBT1H330J5	50V 33P
C3015	ECBT1E103ZF	25V 0.01U
C3016	ECBT1H820JB5	50V 82P
C3017	ECBT1H270J5	50V 27P
C3018	ECEA1HK010B	50V 1U
C3019	ECBT1E103ZF	25V 0.01U
C3020	ECBT1H330J5	50V 33P
C3021	ECBT1C472MR5	16V 4700P
C3022-3024	ECBT1E103ZF	25V 0.01U
C3025	ECBT1H680J5	50V 68P
C3026	ECBT1E103ZF	25V 0.01U
C3027	ECBT1H220JC5	50V 22P
C3028	ECEA0JU331B	6.3V 330U
C3029	ECEA1HKR47	50V 0.47U
C3032	ECEA0JK221B	6.3V 220U
C3033	ECBT1E103ZF	25V 0.01U
C3034	ECEA0JK221B	6.3V 220U
C3035	ECBT1E103ZF	25V 0.01U
C3036	ECEA0JK221B	6.3V 220U
C3037	ECBT1E103ZF	25V 0.01U
C3038-3042	ECEA1CU101	16V 100U
C3043	ECEA1CK100B	16V 10U
C3047	ECBT1E103ZF	25V 0.01U
C3048	ECEA0JK101	6.3V 100U
C3049	ECBT1E103ZF	25V 0.01U
C3050	ECEA0JK101	6.3V 100U
C3051	ECBT1E103ZF	25V 0.01U
C3052	ECEA0JK101	6.3V 100U
C3054	ECBT1H104ZF5	50V 0.1U
C3055, 3056	ECBT1H121KB5	50V 120P
C3057	ECBT1H270J5	50V 27P
C3058	ECEA1HK010B	50V 1U
C3059	ECBT1C472MR5	16V 4700P
C3060	ECEA0JK101	6.3V 100U
C3061, 3062	ECBT1E103ZF	25V 0.01U
C3063	ECBT1H104ZF5	50V 0.1U
C3066	ECBT1E103ZF	25V 0.01U
C3071	ECBT1E103ZF	25V 0.01U
C3072	ECBT1H104ZF5	50V 0.1U
C3074	ECEA0JK101	6.3V 100U
C3075, 3076	ECBT1E103ZF	25V 0.01U
C3077	ECBT1H104ZF5	50V 0.1U
C3078	ECEA1CK100B	16V 10U
C3101, 3102	ECBT1E103ZF	25V 0.01U
C3103, 3104	ECEA0JK221B	6.3V 220U
C3105, 3106	ECEA1CU470	16V 47U
C3107, 3108	ECBT1E103ZF	25V 0.01U
C3109-3112	ECBT1H680J5	50V 68P
C3113-3116	ECBT1H470J5	50V 47P
C3117, 3118	ECQM1H333JZ	50V 0.033U
C3119, 3120	ECKD1H471KB	50V 470P
C3121, 3122	ECBT1H101KB5	50V 100P
C3123, 3124	ECEA1CU470	16V 47U
C3125, 3126	ECEA1CKN4R7B	16V 4.7U
C3127-3130	ECBT1H102KB5	50V 1000P
C3131, 3132	ECBT1E103ZF	25V 0.01U

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RKM0102A-K	CABINET	
2	SNE2129-3	SCREW	
3	XTBS3+8JFZ1	SCREW	
4	RMN0134-1	FL HOLDER	
5	RGR0122A-A	REAR PANEL	
6	RGU0101	BUTTON, SPEAKER	
7	RGW0049A-K	KNOB, VOLUME	
8	RGW0073	KNOB, BALANCE	
9	RGW0079	KNOB, TUNING	
10	RGW0083	KNOB, BASS/TREBLE	
11	RKU0035	PLATE	
12	RMA0309	ANGLE	
13	RMA0473	ANGLE	
14	RMN0086	SPACER	
15	RSC0200	DAC SHIELD PLATE A	
16	RSC0201	DAC SHIELD PLATE B	
17	RGK0382A	FRONT GRILL (CENTOR)	
18	RGL0129	PANEL LIGHT	
19	RGU0453-K	BUTTON, POWER	
20	RGU0592	BUTTON, PEQ. SYSTEM	
21	RGU0593	BUTTON, PRESET	
22	RGU0594A	BUTTON, DOLBY	
23	RGU0595	BUTTON, SELECT	
24	RGU0596A	BUTTON, TUNER	
25	RGU0597	BUTTON, MODE	
26	SHE187-2	HOLDER	
27	SHR411	LATCH	
28	SHR415	LATCH	
29	SHR8006	SPACER	
30	SJP9205-2T	SHORT PIN	
31	SJS9233A	AC OUTLET COVER	
32	SJS9234A	AC INLET COVER	
33	SKL306	FOOT	
34	SNE2118	SCREW	
35	SNE2123	GND TERMINAL SCREW	
36	SNE4021	NUT	
37	SUS894-1	PLATE	
38	SYE1128-2	FAN ASS'Y	
38-1	MDN-4RB4MRC	MOTOR	
38-2	SHE232	FAN	
38-3	SUS271	SPRING	
38-4	SHE233	FAN CASE	
38-5	SHE234	CAP	
38-6	SJT783	TERMINAL	
38-7	SJS5215	SOCKET (2P)	
39	XTBS26+8J	SCREW	
40	XTBS3+8JFZ1	SCREW	
41	XTB3+20JFZ	SCREW	
42	XTB3+22F	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
43	XTB3+8JFZ	SCREW	
44	XTWS3+8T	SCREW	
45	XWE3G14	WASHER	
46	XNS7	NUT	
47	RFKGAGX910PK	FRONT PANEL ASS'Y	
48	RFKJAGX910PK	BOTTOM BOARD ASS'Y	
49	RFKNAGX910PK	ORNAMENT (R) ASS'Y	
		PACKING MATERINALS	
P1	RPG0889	PACKING CASE	
P2	RPN0499	PAD	
P3	XZB60X65A01Z	PROTECTION COVER	
P4	SPSD155	ACCESSORIES BOX	
P5	XZB24X33C04	PROTECTION COVER (MANUAL)	
P6	RQX9467ZA	ENVELOPE	(for CANADA)
		ACCESSORIES	
A1	RQF1106	INSTRUCTIONS MANUAL ASS'Y	
A1-1	RQT1014-Y	INSTRUCTIONS MANUAL	
A1-2	RQA0049	WARRANTY CARD	(for CANADA)
A1-2	SQX7179	WARRANTY CARD	
A1-3	SQX9131	SERVICE CENTOR LIST	(for CANADA)
A1-3	SQX9129-1	SERVICE CENTOR LIST	
A2	EUR66636	REMOTE CONTROLLER	
A3	SJA172	POWER SUPPLY CORD	⚠
A4	SJS8202	ANTENNA PLUG	
A5	SPB1163T	AM LOOP ANTENNA	
A5-1	SMA233-1M	HOLDER	
A5-2	XTN3+10AFZ	SCREW	
A6	SSA270M	FM INDOOR ANTENNA	

■ CABINET PARTS LOCATION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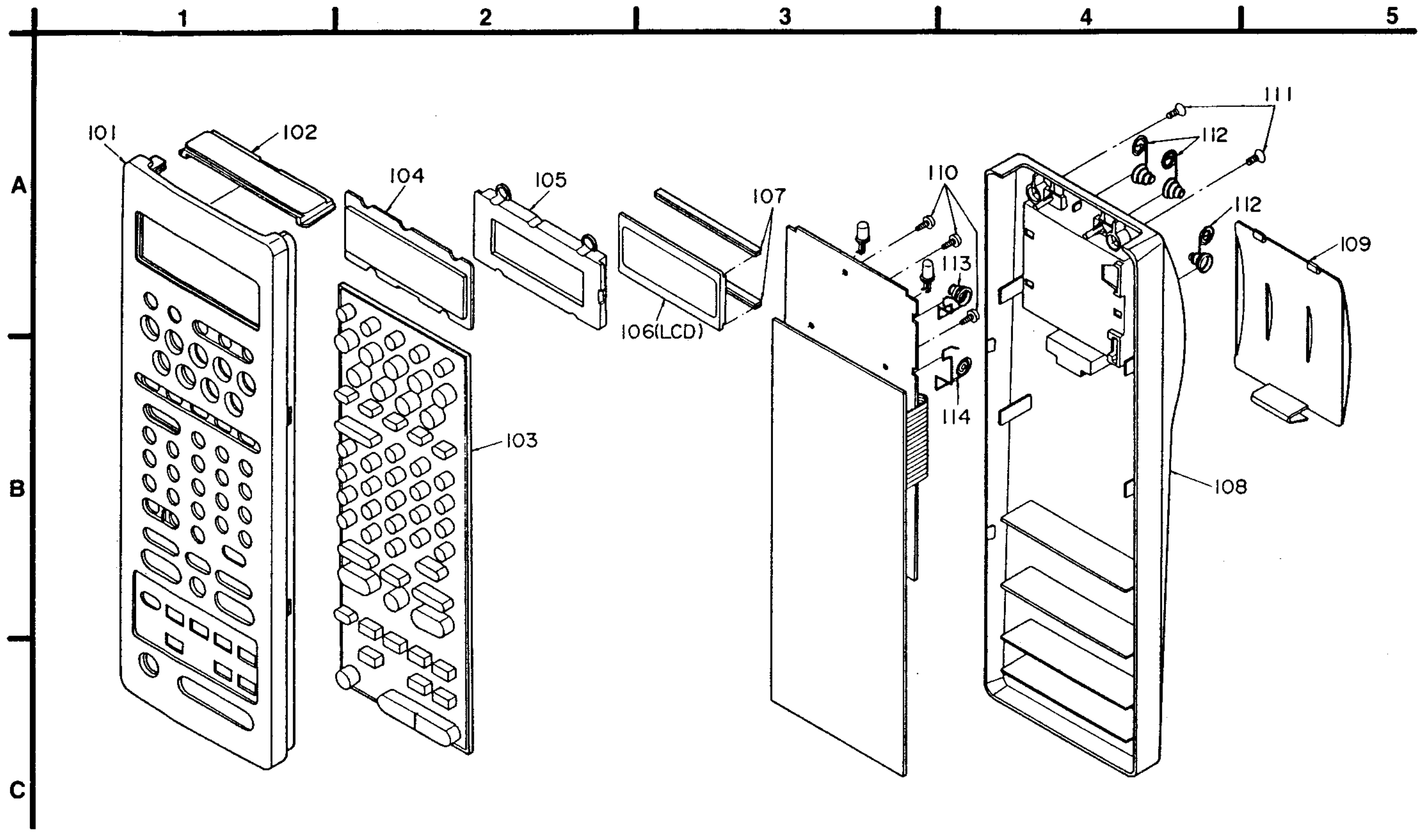
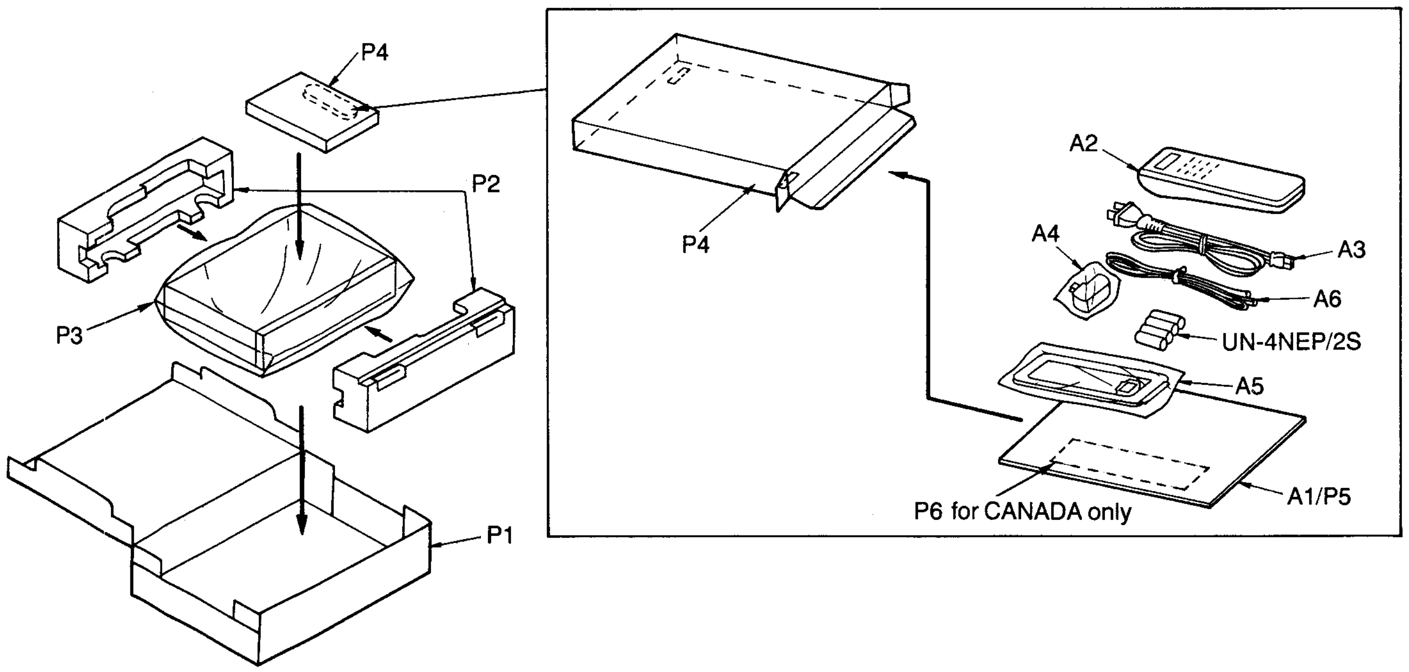
•REMOTE CONTROLLER

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	UPD75308F478	I.C, MICROCOMPUTER	
IC2	UPD65012F251	I.C, DIGITAL PROCESSOR	
IC3	MB8464A10MAT	I.C, S-RAM	
IC4	UPD4069UBGE2	I.C, INVERTER	
IC5	RH5RE50AA	I.C, REGULATOR	
IC7	S8054HNCBT1	I.C, RESET	
		TRANSISTOR(S)	
Q1	UN7231TW	TRANSISTOR	
Q2	UN221DTW	TRANSISTOR	
		DIODE(S)	
D1	TPS705	DIODE	
D2	1SS294TE85R	DIODE	
D3	SE303AS	LED	
D4	SE303AS	LED	
		OSCILLATOR(S)	
X1	CSA400MGTF	OSCILLATOR	
X2	KF38G	OSCILLATOR	
		RESISTOR(S)	
R1	ERJ6GEYJ682V	RESISTOR 1/10W 6.8K	
R2	ERJ6GEYJ103V	RESISTOR 1/10W 10K	
R3	ERJ6GEYJ103V	RESISTOR 1/10W 10K	
R4	ERJ6GEYJ225	RESISTOR 1/10W 2.2M	
R5	ERJ6GEYJ124V	RESISTOR 1/10W 120K	
R6	ERJ6GEYJ561V	RESISTOR 1/10W 560	
R7	ERJ6GEYG393	RESISTOR 1/10W 39K	
R8	ERJ6GEYG273V	RESISTOR 1/10W 27K	
R9	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R10	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R11	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R15	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R16	ERJ6GEYJ103V	RESISTOR 1/10W 10K	
R17	ERD25TLJ8R2U	RESISTOR 1/10W 8.2	
R21	ERJ6GEYJ334V	RESISTOR 1/10W 330K	
R22	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R23	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R24	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R25	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R26	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R27	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R28	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R29	ERJ6GEYJ104V	RESISTOR 1/10W 100K	
R30	ERJ6GEYJ563V	RESISTOR 1/10W 56K	
		CAPACITOR(S)	
C1	ECUV1H332KBN	CAPACITOR 50V 3300P	
C2	21WR473K25AT	CAPACITOR 25V 0.047U	
C3	21WR473K25AT	CAPACITOR 25V 0.047U	
C5	ECUV1H103KB	CAPACITOR 50V 0.01U	
C6	ECEA1AU101	CAPACITOR 10V 100U	
C8	ECUV1H103KB	CAPACITOR 50V 0.01U	
C9	ECUV1H103KB	CAPACITOR 50V 0.01U	
C10	ECEA0JU331	CAPACITOR 6.3V 330U	
C11	ECUV1H330KCN	CAPACITOR 50V 33P	
C12	ECUV1H330KCN	CAPACITOR 50V 33P	
C13	ECUV1H330KCN	CAPACITOR 50V 33P	
C14	ECUV1H330KCN	CAPACITOR 50V 33P	
C16	ECUV1H103KB	CAPACITOR 50V 0.01U	
C17	ECEA0JU102E	CAPACITOR 6.3V 1000U	
C30	ECUV1H221KC	CAPACITOR 50V 220P	
		CABINET	
101	RFKGEUR66636	UPPER CABINET ASS'Y	
102	UR66SB379	SMOKE PLATE	
103	UR66CT380C	RUBBER CONTACT	
104	UR66MF382	WINDOW PLATE	
105	UR66SS400	SPACER	
106	UR66SC370	LCD	
107	UR66CN405	CONNECTOR	
108	UR66CS377A	LOWER CABINET	
109	UR66EC378	BATTERY COVER	
110	XTB2+5GFZ	SCREW	
111	XTS2+8GFZ	SCREW	
112	UR68TD10	BATTERY TERMINAL(COMMON)	
113	UR66TD386	BATTERY TERMINAL(-)	
114	UR66TD385	BATTERY TERMINAL(+)	

■ CABINET PARTS LOCATIONS (REMOTE CONTROLLER)



■ PACKING



Printed in Japan
F910403570FF/HH/KK

ORDER NO. AD9106168A4

Service Manual

Receiver

SA-GX910

D.S.P. AV Control Stereo Receiver

- **Please file and use this simplified manual together with the service manual for model No. SA-GX910, Order No. AD9104077C1.**
- **This service manual indicates the main differences between; Original SA-GX910 (PP) and SA-GX910 (PX).**

Color

(K) .... Black Type

Areas

Country Code	Area	Color
(PX)	Far East-PX and Europe PX	(K)

■ CHANGE IN SPECIFICATIONS

■ AMPLIFIER SECTION

Rated minimum sine wave
RMS power output
20 Hz~20 kHz both channels driven
0.008% total harmonic distortion
125 W per channel (8 Ω)

1 kHz continuous power output
both channels driven
0.008% total harmonic distortion 130 W per channel (8 Ω)

Load impedance
A or B 4~8 Ω
A and B 8 Ω

■ FM TUNER SECTION

Frequency range 87.9~107.9 MHz

■ AM TUNER SECTION

Frequency range 530~1720 kHz

■ GENERAL

Power consumption 500 W, 650 VA
Power supply AC 120V, 60Hz

⇨

■ AMPLIFIER SECTION

Rated minimum sine wave
RMS power output
20 Hz~20 kHz both channels driven
0.008% total harmonic distortion
110 W per channel (8 Ω)

1 kHz continuous power output
both channels driven
0.008% total harmonic distortion 115 W per channel (8 Ω)

Load impedance
A or B 4~16Ω
A and B 8~16Ω

■ FM TUNER SECTION

Frequency range 87.5~108.0 MHz

■ AM TUNER SECTION

Frequency range 522~1611 kHz/9 kHz-steps
530~1620 kHz/10 kHz-steps

■ GENERAL

Power consumption 850 W
Power supply 110 V/127 V/220 V/240 V, 50/60 Hz

■ CHANGE IN REPLACEMENT PARTS LIST

Note: 1. Mentioned in this parts list are only those different from Model No. SA-GX910 (PP); all other parts are the same as for SA-GX910 (PP).

SA-GX910 (Page 68~78, 81 of sevice manual.)

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	SA-GX910 (PP)	**SA-GX910 (PX)**		
TRANSISTOR(S)				
Q751	2SC3940AQSTA	**2SC1815Y0TP**	TRANSISTOR	
Q752	———	**2SK381CTA**	TRANSISTOR	**Addition**
Q753, 754	———	**2SD1761DEF**	TRANSISTOR	**Addition**
Q903	UN4211	**UN4111**	TRANSISTOR	

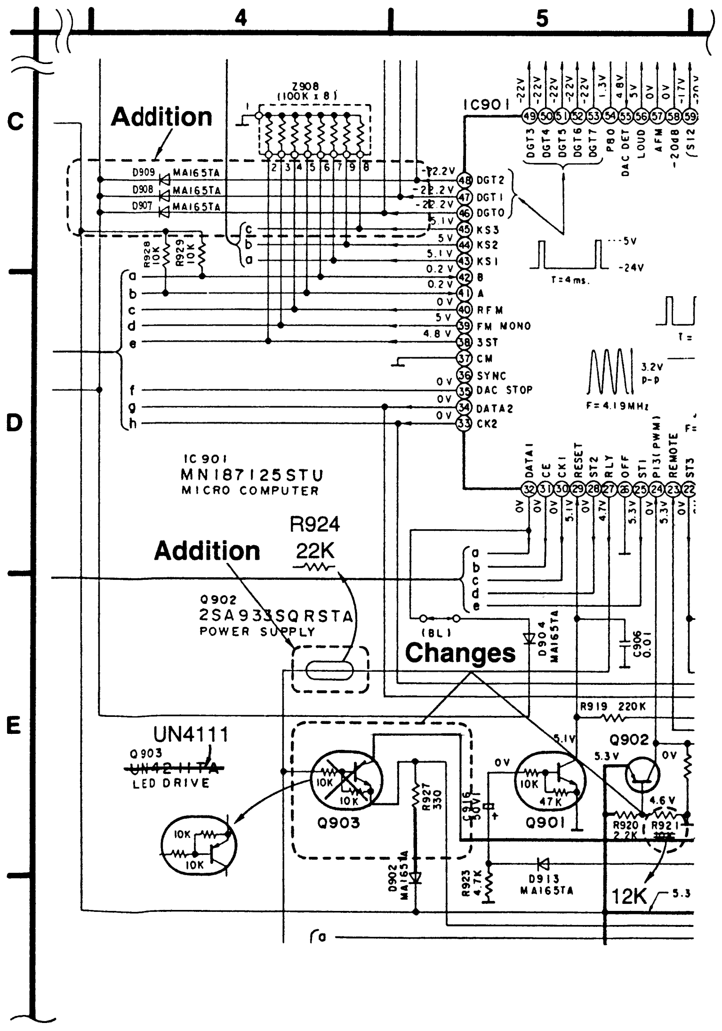
Technics

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	SA-GX910 (PP)	**SA-GX910 (PX)**		
DIODE(S)				
D604, 758, 907	——	**MA165TA**	DIODE	**Addition**
D757	——	**MA4120MTA**	DIODE	**Addition**
TRANSFORMER(S)				
T1	——	**RTP1R5E003-W**	POWER TRANSFORMER	⚠ **Addition**
T701	RTP1R5C001-W	——	POWER TRANSFORMER	⚠
T751	RTP1H5C001-V	**RTP1I5E004-V**	POWER TRANSFORMER	⚠
FUSE(S)				
F1	XBA1F80NU14	**XBA2C63TB0**	FUSE, 250 V T6.3 A	⚠
F2	——	**XBA2C31TB0**	FUSE, 250 V T3.15 A	⚠ **Addition**
F3, 4	XBA1F40NU14	**XBA2C40TB0**	FUSE, 250 V T4 A	⚠
SWITCH(ES)				
S703	——	**ESE37263**	SW, VOLTAGE SELECTOR	⚠ **Addition**
FUSE HOLDER(S)				
E701~706	RJR0011	**EYF52BC**	FUSE HOLDER	**Addition**
E707, 708	——			
JACK(S)				
JK701	SJS305-1	**SJS702-1**	CONNECTOR	
JK793	SJS9234B	**SJS9231B**	AC INLET	⚠
THERMAL DETECTOR				
PS601	——	**SRPBC47101**	POSISTOR	**Addition**
RESISTORS				
R636	——	**ERDS2TJ153T**	RESISTOR 1/4 W 15 K	**Addition**
R751	ERC12ZGK335	——	RESISTOR 1/2 W 3.3 M	
R752	——	**ERDS2TJ221T**	RESISTOR 1/4 W 220	**Addition**
R755	ERDS2TJ472	——	RESISTOR 1/4 W 4.7 K	
R756, 757	——	**ERDS2TJ8R2T**	RESISTOR 1/4 W 8.2	**Addition**
R921	ERDS2TJ103	**ERDS2TJ123T**	RESISTOR 1/4 W 12 K	
R924	——	**ERDS2TJ223T**	RESISTOR 1/4 W 22 K	**Addition**
CAPACITORS				
C752	ECA1CM102B	**ECA1HM102E**	CAPACITOR 50 V 1000 µ	
C753	——	**ECKR1H103ZF5**	CAPACITOR 50 V 0.01 µ	**Addition**
C754	ECA1HAP100B	**ECEA1AU221B**	CAPACITOR 10 V 220 µ	
C760	——	**ECEA1CK100B**	CAPACITOR 16 V 10 µ	**Addition**
CABINET PARTS				
5	RGR0122A-A	**RGR0122C-A**	REAR PANEL	
10	RGW0083	**RGW0083-1**	KNOB, BASS/TREBLE	
24	RGU0596A	**RGU0596B**	BUTTON, TUNER	
27	SHR411	——	LATCH	
32	SJS9234A	**SJS9231A**	AC INLET COVER	
42	XTB3+22F	**XTBS3+22F**	SCREW	
43	XTB3+8JFZ	**XTB3+8J**	SCREW	
45	XWE3G14	**XWE3F13**	WASHER	
48	RFKJAGX910PK	**RMK0128-1**	BOTTOM BOARD	
PACKING MATERIALS				
P1	RPG0889	**RPG0889-1**	PACKING CASE	
P5	XZB24X33C04	**SPB1061**	PROTECTION COVER (MANUAL)	
P6	RQX9467ZA	——	ENVELOPE	

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	SA-GX910 (PP)	**SA-GX910 (PX)**		
ACCESSORIES				
A1	RQF1106	**RQF1254**	INSTRUCTIONS MANUAL ASS'Y	
A1-1	RQT1014-Y	**RQT1199-M**	INSTRUCTIONS MANUAL	
A1-2	RQA0049	———	WARRANTY CARD	
	SQX7179	**SQX7071-1**		
A1-3	SQX9131	———	SERVICE CENTER LIST	
	SQX9129-1			
A3	SJA172	**RJA0004**	AC POWER SUPPLY CORD	⚠
A7	———	**SJP9215**	ATTACHMENT PLUG	⚠ **Addition**

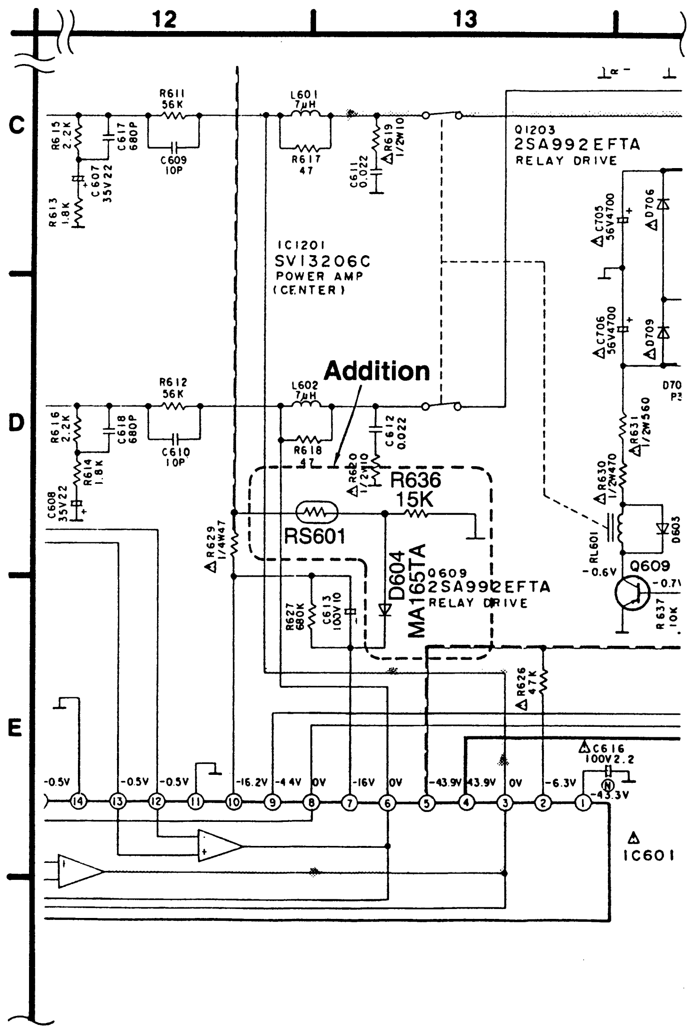
■ SCHEMATIC DIAGRAM

G FL DRIVE CIRCUIT (See pages 35~36.)



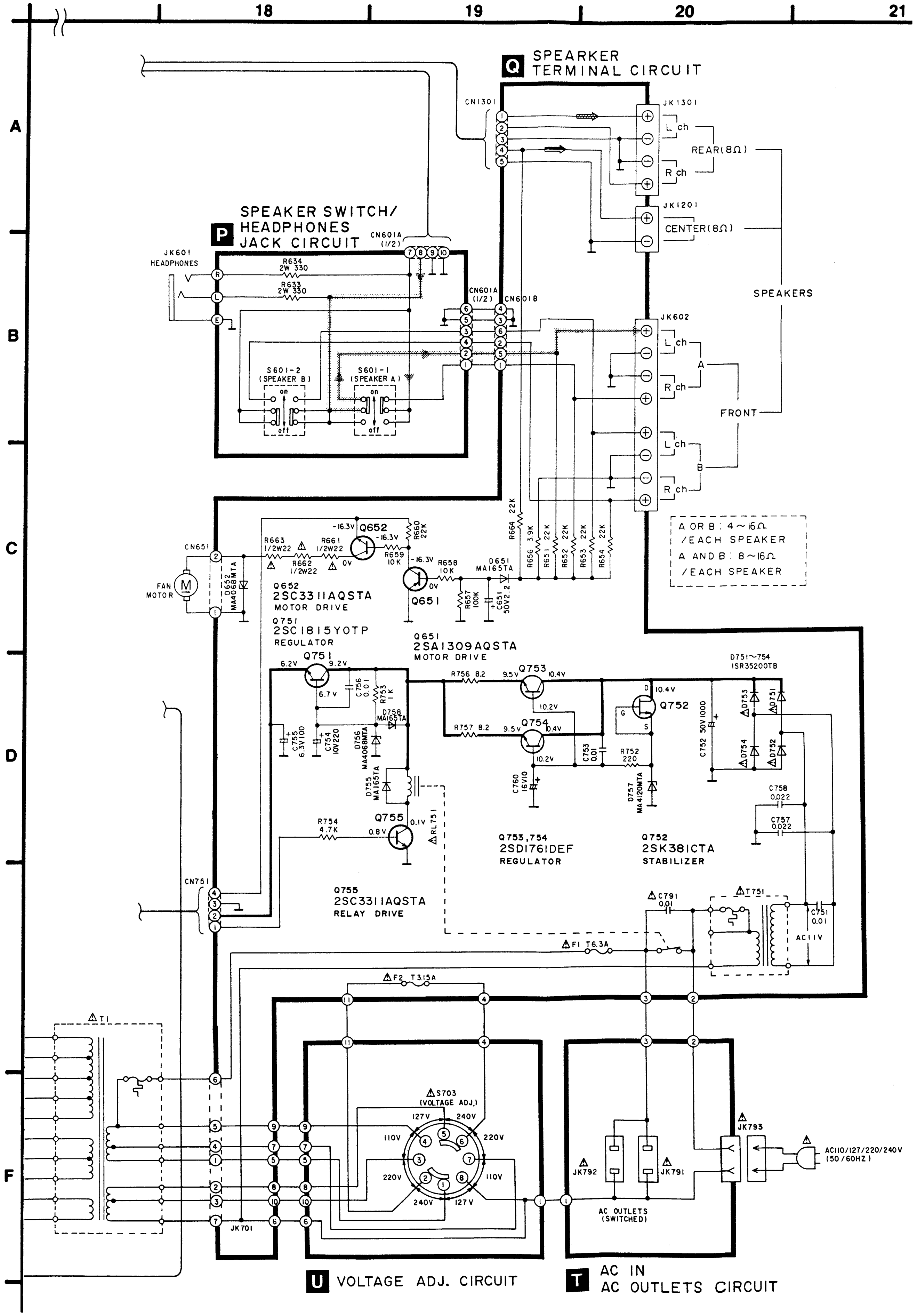
4
5
C
D
E
Addition
IC901
MN187125STU
MICRO COMPUTER
R924
22K
Addition
Q902
2SA933SQRSTA
POWER SUPPLY
Changes
UN4111
Q903
~~UN4211TA~~
LED DRIVE
Q903
Q901
D913
MA165TA
12K

N MAIN CIRCUIT (See pages 40~41.)



12
13
C
D
E
IC1201
SV13206C
POWER AMP
(CENTER)
Q1203
2SA992EFTA
RELAY DRIVE
Addition
R636
15K
RS601
D604
MA165TA
Q609
2SA992EFTA
RELAY DRIVE
IC601

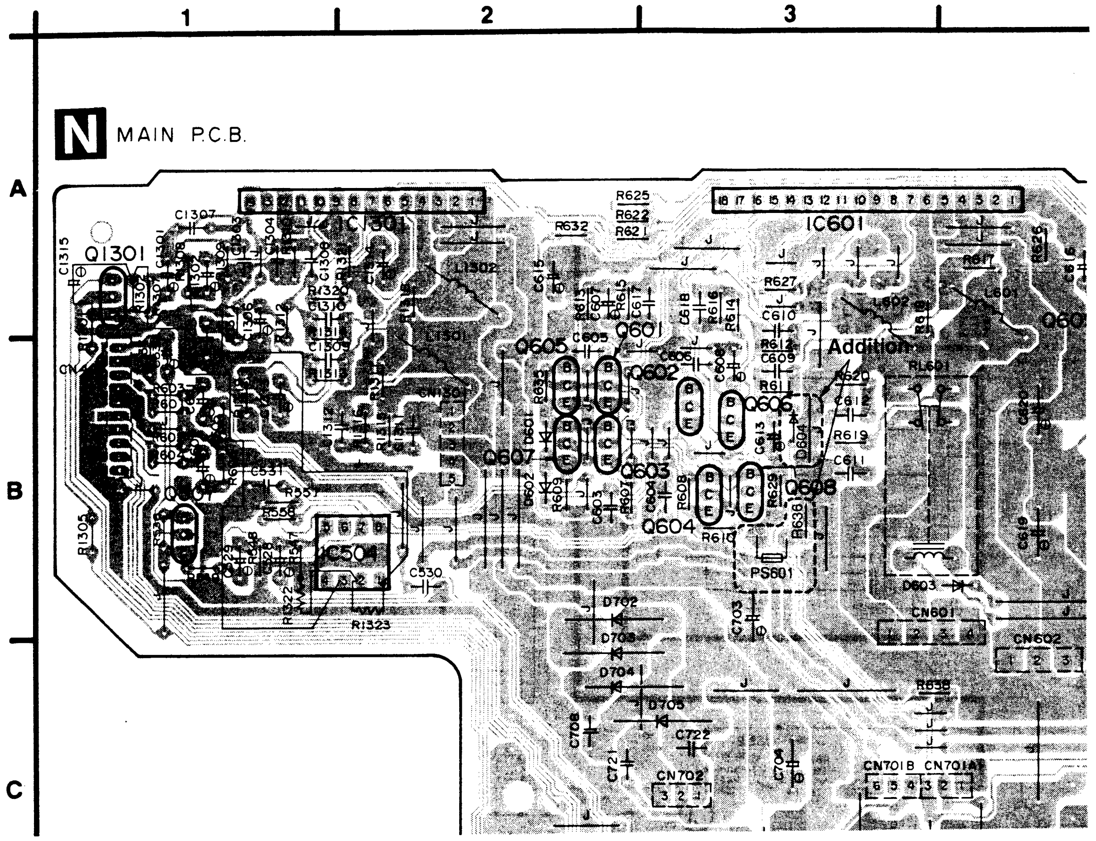
Q SPEAKER TERMINAL CIRCUIT (CHANGES) (See pages 42.)



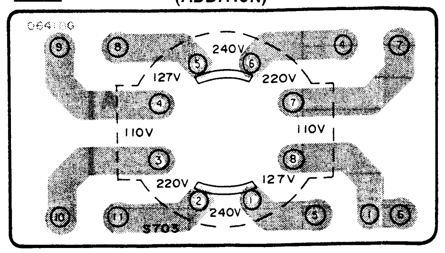
18
19
20
21
A
B
C
D
E
F
Q SPEARKER TERMINAL CIRCUIT
JK1301
L ch
R ch
REAR(8Ω)
JK1201
CENTER(8Ω)
SPEAKERS
P SPEAKER SWITCH/ HEADPHONES JACK CIRCUIT
JK601 HEADPHONES
S601-2 (SPEAKER B)
S601-1 (SPEAKER A)
JK602
A
FRONT
B
A OR B : 4~16Ω /EACH SPEAKER
A AND B : 8~16Ω /EACH SPEAKER
FAN MOTOR
Q652 2SC3311AQSTA MOTOR DRIVE
Q751 2SC1815YOTP REGULATOR
Q651 2SA1309AQSTA MOTOR DRIVE
Q753,754 2SD1761DEF REGULATOR
Q752 2SK381CTA STABILIZER
Q755 2SC3311AQSTA RELAY DRIVE
S703 (VOLTAGE ADJ.)
JK792
JK791
JK793
AC110/127/220/240V (50/60HZ)
AC OUTLETS (SWITCHED)
JK701
U VOLTAGE ADJ. CIRCUIT
T AC IN AC OUTLETS CIRCUIT

■ PRINTED CIRCUIT BOARDS

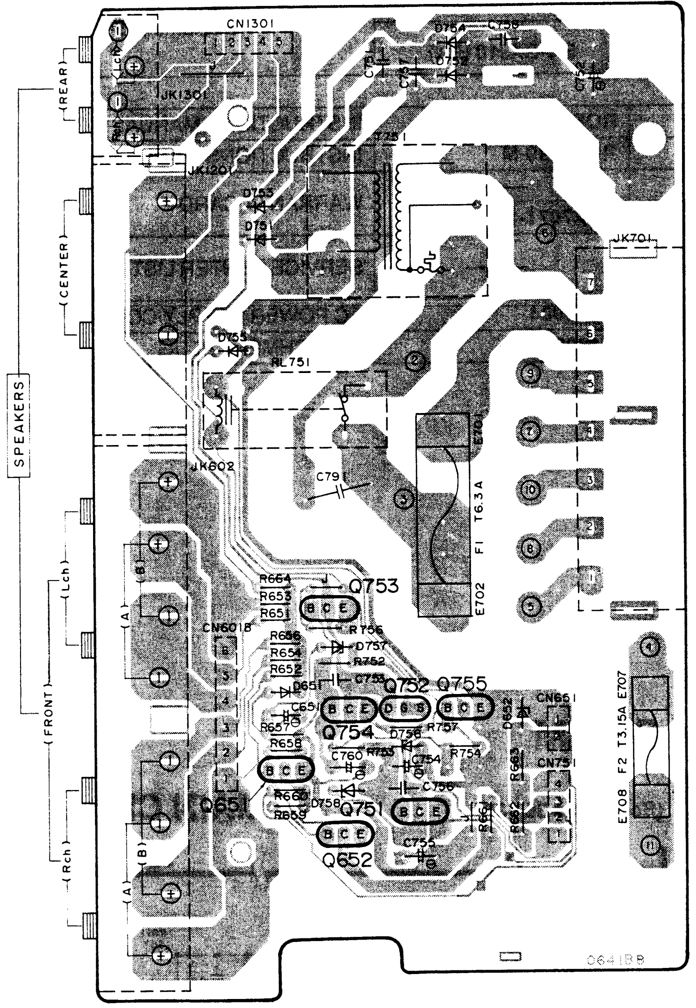
N MAIN P.C.B.


1
2
3
A
B
C
Q1301
IC301
IC601
IC501
Q601
Q602
Q603
Q604
Q605
Q606
Q607
Q608
PS601
CN601
CN602
CN702
CN701B CN701A
Addition

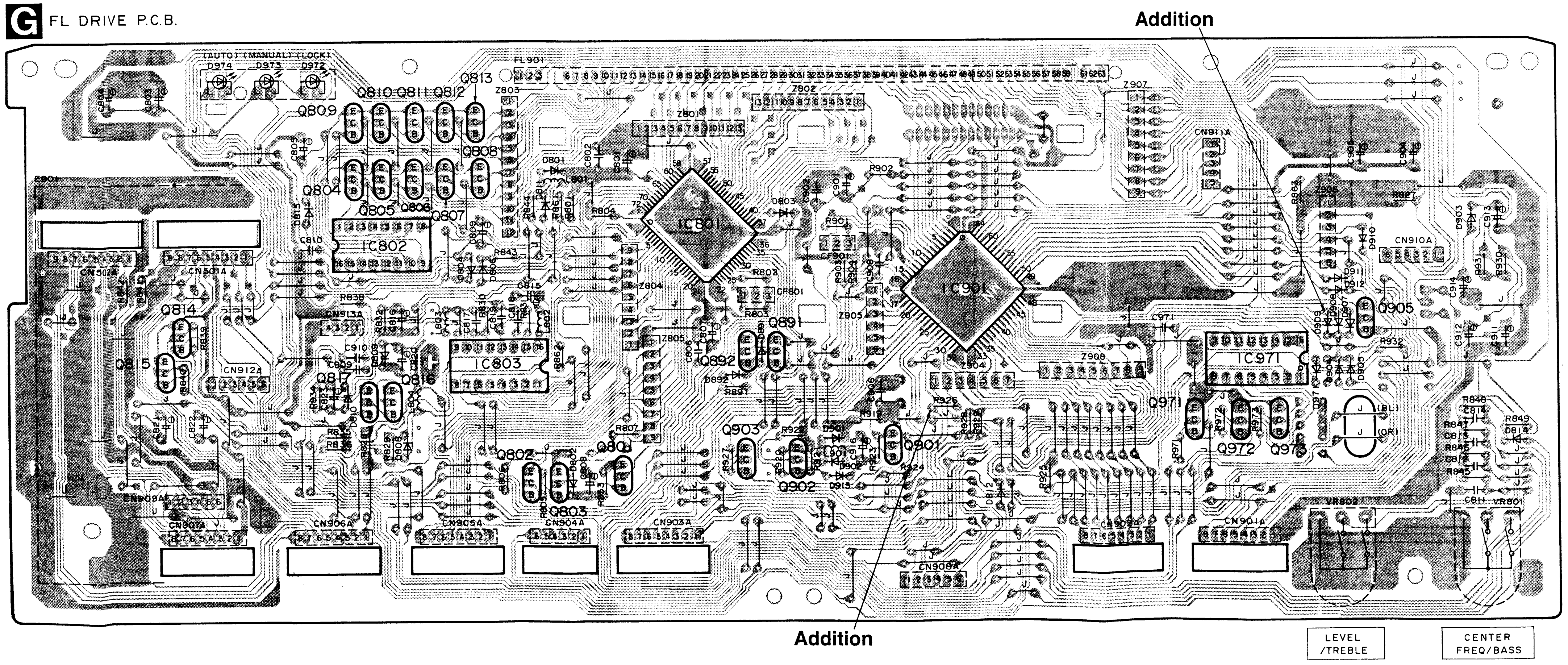
U VOLTAGE ADJ. P.C.B. (ADDITION)


240V
127V
220V
110V
110V
220V
127V
240V
S703
VOLTAGE ADJ.

Q SPEAKER TERMINAL P.C.B. (CHANGES)


CN1301
JK1301
(REAR)
(CENTER)
SPEAKERS
(FRONT)
(Lch)
(Rch)
(A)
(B)
JK701
JK802
RL751
C791
F1 T6.3A
E702
F2 T3.15A E707
E708
Q753
Q752
Q755
Q754
Q651
Q751
Q652
CN651
CN751
CN601B

G FL DRIVE P.C.B.


Addition
(AUTO) (MANUAL) (LOCK)
FL901
IC801
IC802
IC803
IC901
IC971
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
Q809
Q810
Q811
Q812
Q813
Q814
Q815
Q816
Q817
Q891
Q892
Q901
Q902
Q903
Q905
Q971
Q972
Q973
CN501A
CN502A
CN901A
CN903A
CN904A
CN905A
CN906A
CN908A
CN910A
CN911A
CN912A
CN913A
VR801
VR802
Addition
LEVEL /TREBLE
CENTER FREQ/BASS

Printed in Japan
F910700800 FF/HH/TN